

## 2005-2006 CALENDAR

### SUMMER SEMESTER 2005

|         |  |
|---------|--|
| May 16  | First day of classes for May (4-week) session                    |
| May 30  | Memorial Day observance - NO CLASSES                             |
| June 9  | Final exams & last day of May session                            |
| June 13 | First day of classes for June (4-week) and 8-week sessions       |
| July 4  | Independence Day holiday - NO CLASSES                            |
| July 7  | Final exams & last day of June (4-week) session                  |
| July 11 | First day of classes for July (4-week) session                   |
| Aug. 3  | Final examinations for 8-week session and July (4-week) sessions |
| Aug. 3  | Summer session ends  |

### FALL SEMESTER 2005

|                   |   |
|-------------------|---|
| Aug. 3            | Residency petitions due to Tuition Classifications Officer (Admissions Office)  |
| Aug. 22           | First day of classes  |
| Sept. 5, 6        | Labor Day - NO CLASSES  |
| Sept. 8           | Fall census   |
| Sept. 8           | Last day to add or drop a full semester class   |
| Sept. 15          | Deadline for filing Intent to Graduate form with Registrar's Office for spring 2006 graduates   |
| Oct. 17-18        | Fall Break - NO CLASSES   |
| Oct. 19           | Second module begins  |
| Oct. 19           | Last day to withdraw from full semester classes with a grade of "W"   |
| Oct. 31 - Nov. 16 | Early registration for spring 2006; students may register or make schedule adjustments anytime following the early registration period until classes begin. |
| Nov. 23-25        | Thanksgiving vacation - NO CLASSES  |
| Dec. 9            | Last day of classes   |
| Dec. 12-15        | Final examinations  |
| Dec. 15           | Fall semester ends  |

### SPRING SEMESTER 2006 (Including January Term)

|              |   |
|--------------|---|
| Jan. 2       | Residency petitions due to Tuition Classifications Officer (Admissions Office)                    |
| Jan. 3-20    | January Term  |
| Jan. 23      | First day of classes  |
| Feb. 7       | Last day to add or drop a full semester class   |
| Feb. 7       | Spring census   |
| Feb. 15      | Deadline for filing Intent to Graduate form with Registrar's Office for fall 2006 graduates       |
| Feb. 20-21   | Winter Break - NO CLASSES   |
| Mar. 11      | Returning student applications due to be eligible for early registration for summer and fall 2006 |
| Mar. 13-17   | Spring Break - NO CLASSES   |
| Mar. 27      | Second module classes begin   |
| Mar. 27      | Last day to withdraw from full semester classes with a grade of "W"                               |
| Apr. 3-14    | Early registration for summer and fall 2006   |
| May 12       | Last day of classes   |
| May 15-18    | Final examinations  |
| May 18       | Spring semester ends  |
| May 20 or 21 | Commencement  |

Cover Design: Greg Campbell, Graphic Design major, Mesa State Campus Design Studio.

# MESA STATE COLLEGE

## 2005-2006 CATALOG

---



---

**1100 North Avenue • Grand Junction, Colorado 81501-3122**  
**Phone: (970) 248-1020**  
**[www.mesastate.edu](http://www.mesastate.edu)**



## General Policy Statement

Mesa State College is a comprehensive coeducational institution operated under the governance of the Board of Trustees of Mesa State College. The programs, policies, statements, and procedures contained in this catalog are subject to change by the college without prior notice. Mesa State College reserves the right to, at any time, withdraw courses or modify the rules, calendar, curriculum, graduation procedures, and any other requirements affecting students. While the information contained in this catalog is current and correct insofar as possible at the time of printing, students are advised to check with appropriate College officials and current program sheets for up-to-date information.

This catalog is intended for the guidance of students and faculty but does not constitute a guarantee that all courses listed will actually be offered during any particular academic year. Mesa State College reserves the right to withdraw or add courses prior to the beginning of any semester or summer term. In some programs, certain courses may be offered on an alternate-year basis or as determined by apparent demand. All program offerings are contingent upon adequate appropriations by the Colorado General Assembly

Mesa State College is committed to providing admission or access to, or treatment or employment in, its educational endeavors, consonant with applicable laws and without regard to race, creed, color, religion, sex, disability, age, national origin or Vietnam era veteran status.

Inquiries may be made to the Affirmative Action Officer, Human Resources Office, Lowell Heiny Hall, Room 237.

Mesa State College is a Drug-Free Workplace. All employees and students of the College agree to abide by the requirements in the Federal Drug-Free Workplace Act and the policies stated in the brochure entitled "Drug-Free Schools, Campuses and Workplaces, State Colleges in Colorado, Drug Use and Alcohol Abuse Prevention Program." All employees and students are provided with copies.

As required by the Campus Security Act, Mesa State College publishes campus safety policies and statistics annually. Copies of the annual report are available upon request from the Registrar's Office.

## FERPA Policy Statement

The Family Educational Rights and Privacy Act (FERPA) provides students who are enrolled in an institution of postsecondary education the right to inspect, review, and challenge their educational records. Mesa State College has the responsibility of maintaining and protecting the confidentiality of students' official educational records. Mesa State College also supervises the access to and/or release of educational records of its students.

FERPA covers enrolled and former students, including deceased students. Students who are not accepted to Mesa State College, or if accepted, do not attend, have no rights under FERPA. In addition, the College will not release personally identifiable records of students to any individual, agency or organization without the prior written consent of the student, except as provided by FERPA. For further information related to FERPA, see the Registration section of this catalog.

# TABLE OF CONTENTS

| SUBJECT  | PAGE                      | SUBJECT  | PAGE       |
|--|---------------------------|--|------------|
| <b>Academic Calendar</b> . . . . .                                 | <b>Inside Front Cover</b> | Mesa State College Foundation Programs . . . . .           | .19        |
| <b>General Policy Statement</b> . . . . .                          | <b>.3</b>                 | Federal Student Aid Programs . . . . .                     | .19        |
| <b>Family Education Rights &amp; Privacy Act (FERPA)</b> . . . . . | <b>.3</b>                 | General Guidelines . . . . .                               | .19        |
| <b>Table of Contents</b> . . . . .                                 | <b>.4</b>                 | Western Undergraduate Exchange (WUE) . . . . .             | .19        |
| <b>General Information</b> . . . . .                               | <b>.7</b>                 | <b>Expenses at Mesa State College</b> . . . . .            | <b>.20</b> |
| An Overview of Mesa State College . . . . .                        | .7                        | Determination of Residency Status for                      |            |
| Accreditation . . . . .  | .7                        | Tuition Purposes . . . . .                                 | .20        |
| Mesa State College Montrose Campus . . . . .                       | .7                        | Emancipation . . . . .                                     | .20        |
| Mesa State College at UTEC . . . . .                               | .8                        | Residency Appeals . . . . .                                | .20        |
| Diversity Statement . . . . .                                      | .8                        | Tuition and Fees . . . . .                                 | .21        |
| Student Bill of Rights . . . . .                                   | .8                        | Tuition and Fee Schedule . . . . .                         | .21        |
| Degrees and Programs of Study . . . . .                            | .8                        | Student Liability for Tuition and Fees . . . . .           | .22        |
| <b>Undergraduate Admission Information</b> . . . . .               | <b>.12</b>                | Other Fees and Expenses . . . . .                          | .22        |
| Contact Information . . . . .                                      | .12                       | Books and Supplies . . . . .                               | .22        |
| Undergraduate Admission Procedures . . . . .                       | .12                       | Application, Evaluation, and Other Fees . . . . .          | .22        |
| How to Apply . . . . .   | .12                       | Private and Course-Specific Fees . . . . .                 | .22        |
| Probationary Admission Status . . . . .                            | .12                       | Student Health Insurance . . . . .                         | .22        |
| Residency Status for Tuition Purposes . . . . .                    | .12                       | Personal Computer Recommendation . . . . .                 | .23        |
| Admission Procedures by Student                                    |                           | Refunds of Tuition and Fees . . . . .                      | .23        |
| Classifications . . . . .  | .12                       | Student Financial Planning . . . . .                       | .23        |
| Current High School/First-Time                                     |                           | Student Housing and Meal Plans . . . . .                   | .23        |
| Freshmen Students . . . . .  | .12                       | Housing Facilities . . . . .                               | .23        |
| General Educational Development (GED)                              |                           | Student Housing and Dining Contract . . . . .              | .23        |
| Certificate Students . . . . .                                     | .12                       | Off-Campus Housing . . . . .                               | .24        |
| Home Schooled Students . . . . .                                   | .13                       | Campus Dining . . . . .                                    | .24        |
| Non-Traditional Students . . . . .                                 | .13                       | Room and Board Charges . . . . .                           | .24        |
| Transfer Students . . . . .  | .13                       | <b>Student Services, Offices, and Activities</b> . . . . . | <b>.25</b> |
| Returning Students . . . . .                                       | .14                       | Office of Dean of Students . . . . .                       | .25        |
| Non-Degree-Seeking Students . . . . .                              | .14                       | Office of Admissions . . . . .                             | .25        |
| International Students . . . . .                                   | .14                       | Office of Financial Aid . . . . .                          | .25        |
| Early Scholars Program . . . . .                                   | .15                       | Office of the Registrar . . . . .                          | .25        |
| Precollegiate Curriculum Requirements . . . . .                    | .15                       | Educational Access Services . . . . .                      | .25        |
| Confirmation of Attendance . . . . .                               | .16                       | Peer Tutoring Program . . . . .                            | .25        |
| Admission to Specific Undergraduate Programs . . . . .             | .16                       | Writing Center . . . . .                                   | .25        |
| Undergraduate Admission Assessment and                             |                           | Testing Center . . . . .                                   | .25        |
| Counseling Tests . . . . .   | .16                       | Advising and Career Center . . . . .                       | .25        |
| ACT or SAT . . . . .   | .16                       | Student Financial Planning . . . . .                       | .26        |
| Alternative Admission Assessment . . . . .                         | .17                       | Student Health Center . . . . .                            | .26        |
| Assessment and Evaluation  |                           | Behavioral Clinical Services . . . . .                     | .26        |
| after Enrollment . . . . .   | .17                       | Counseling Services . . . . .                              | .26        |
| Acceleration of College Study . . . . .                            | .17                       | Alcohol/Drug Education (AWARE Program) . . . . .           | .26        |
| Student Orientation, Advising and                                  |                           | Emergency Contact Services . . . . .                       | .26        |
| Registration (SOAR) . . . . .                                      | .17                       | Office of Transfer Services . . . . .                      | .26        |
| Welcome Week . . . . .   | .17                       | Tomlinson Library . . . . .                                | .27        |
| <b>Financial Aid</b> . . . . .                                     | <b>.18</b>                | Little Mavericks Learning Center . . . . .                 | .27        |
| Contact Information . . . . .                                      | .18                       | Student Activities . . . . .                               | .27        |
| Overview . . . . .   | .18                       | Intercollegiate Athletics . . . . .                        | .27        |
| Tuition Payment Plan . . . . .                                     | .18                       | Campus Recreation Services . . . . .                       | .28        |
| Scholarships . . . . .   | .18                       | MAVCard Student I.D. . . . .                               | .28        |
| Colorado Student Aid Programs . . . . .                            | .18                       | Campus Parking . . . . .                                   | .28        |

| <b>SUBJECT</b>   | <b>PAGE</b> | <b>SUBJECT</b>                                       | <b>PAGE</b> |
|--|-------------|--|-------------|
| <b>Registration Policies and Procedures</b> . . . . .    | <b>29</b>   | Academic Residency for Baccalaureate                 |             |
| Contact Information . . . . .                            | 29          | Degree . . . . .                                     | 39          |
| Overview . . . . .                                       | 29          | Degree Distinction . . . . .                         | 39          |
| Student Liability for Tuition and Fees . . . . .         | 29          | Bachelor of Arts Distinction . . . . .               | 39          |
| Attendance . . . . .                                     | 29          | Bachelor of Science/Bachelor of                      |             |
| Add/Drops-Schedule Adjustment . . . . .                  | 29          | Business Administration Distinction . . . . .        | 39          |
| Withdrawal Procedures . . . . .                          | 29          | English Requirement . . . . .                        | 40          |
| Withdrawal from Individual Classes . . . . .             | 29          | Mathematics Requirement . . . . .                    | 40          |
| Total Withdrawal from the College . . . . .              | 30          | Philosophy and Goals of a Baccalaureate              |             |
| Family Education Rights and                              |             | Education . . . . .                                  | 40          |
| Privacy Act (FERPA) . . . . .                            | 30          | General Education Overview . . . . .                 | 40          |
| General Policy . . . . .                                 | 30          | General Education Course Requirements . . . . .      | 41          |
| Directory Information . . . . .                          | 30          | CCHE Statewide Guaranteed                            |             |
| Access to Student Educational Records . . . . .          | 30          | Transfer Courses . . . . .                           | 41          |
| No-Credit-Desired/Audit Courses . . . . .                | 30          | Courses Approved for Mesa State General              |             |
| Senior Passport to Education Program . . . . .           | 31          | Education Baccalaureate Degree                       |             |
| Classes for Credit . . . . .                             | 31          | Requirements . . . . .                               | 42          |
| Classes for No Credit . . . . .                          | 31          | Second Baccalaureate Degree and Multiple             |             |
| Immunization Policy for Measles, Mumps,                  |             | Concentrations Within One Degree . . . . .           | 44          |
| and Rubella . . . . .                                    | 31          | Requirements for Teacher Licensure . . . . .         | 44          |
| Selective Service . . . . .                              | 31          | Requirements for Associate Degree Programs . . . . . | 44          |
| Veterans . . . . .                                       | 31          | Credit Hour Requirements . . . . .                   | 44          |
| National Student Exchange . . . . .                      | 31          | Academic Residency for Associate Degrees . . . . .   | 44          |
|  |             | Associate of Arts (AA) and Associate of              |             |
| <b>General Academic Policies—Undergraduate</b> . . . . . | <b>32</b>   | Science (AS) Degree Requirements . . . . .           | 44          |
| Grading System . . . . .                                 | 32          | Associate of Applied Science (AAS)                   |             |
| Academic Standards . . . . .                             | 32          | Degree Requirements . . . . .                        | 45          |
| G.P.A. Minimum . . . . .                                 | 32          | Double Emphasis Within an                            |             |
| Academic Probation and Suspension . . . . .              | 32          | Associate Degree . . . . .                           | 45          |
| Grade Improvement . . . . .                              | 33          | Second Associate Degree . . . . .                    | 45          |
| Academic Renewal . . . . .                               | 33          | Requirements for Certificates of Occupational        |             |
| Non-Traditional Credit . . . . .                         | 33          | Proficiency . . . . .                                | 45          |
| Learning Progress Evaluation . . . . .                   | 35          | <b>Programs of Study</b> . . . . .                   | <b>46</b>   |
| Honor Lists . . . . .                                    | 35          | Accounting . . . . .                                 | 46          |
| Honor Societies . . . . .                                | 35          | Administrative Office Technology . . . . .           | 46          |
| Student Load and Limitations . . . . .                   | 36          | Art . . . . .  | 48          |
| Classification Status . . . . .                          | 36          | Biology . . . . .                                    | 49          |
| Student Conduct . . . . .                                | 36          | Business Administration . . . . .                    | 50          |
|  |             | Classical Studies . . . . .                          | 51          |
| <b>Undergraduate Graduation Requirements</b> . . . . .   | <b>37</b>   | Computer Information Systems . . . . .               | 51          |
| Requirements for Degrees . . . . .                       | 37          | Computer Science . . . . .                           | 52          |
| Graduation Checklist and Commencement                    |             | Criminal Justice . . . . .                           | 53          |
| Deadlines . . . . .                                      | 37          | Culinary Arts . . . . .                              | 53          |
| Deficiencies . . . . .                                   | 37          | Education: Early Childhood . . . . .                 | 54          |
| Final Credit Requirements Taken at                       |             | Education: Teacher Licensure . . . . .               | 54          |
| Another College . . . . .                                | 37          | Electric Lineworker . . . . .                        | 55          |
| Declaring a Major . . . . .                              | 37          | Electronic Engineering Technology . . . . .          | 55          |
| Catalog Under Which Student Graduates . . . . .          | 37          | English . . . . .                                    | 56          |
| English and Mathematics Requirements . . . . .           | 38          | Environmental Science and Technology . . . . .       | 56          |
| Human Performance and Wellness                           |             | Geographic Information Systems . . . . .             | 57          |
| Requirement . . . . .                                    | 38          | History . . . . .                                    | 57          |
| Calculation of Grade Point Average                       |             | Human Performance and Wellness . . . . .             | 58          |
| For Graduation . . . . .                                 | 38          | Humanities . . . . .                                 | 59          |
| Graduation with Honors . . . . .                         | 38          | International Studies . . . . .                      | 59          |
| Requirements for a Baccalaureate Degree . . . . .        | 39          | Liberal Arts . . . . .                               | 59          |
| Credit Hour Requirements . . . . .                       | 39          |  |             |

| SUBJECT   | PAGE       | SUBJECT                                    | PAGE                     |
|---|------------|--|--------------------------|
| Manufacturing Technology                        | .61        | Admission Expiration                       | .80                      |
| Mass Communications                             | .63        | Conditional Admission                      | .80                      |
| Mathematics                                     | .64        | Enrollment Prior to Admission              | .80                      |
| Music   | .65        | Academic Advisor                           | .81                      |
| Nursing   | .66        | Degree Plan                                | .81                      |
| Philosophy                                      | .67        | English Competency: Spoken and Written     | .81                      |
| Physical Sciences                               | .67        | Transfer Credit                            | .81                      |
| Political Science                               | .68        | Course Level Requirements                  | .81                      |
| Psychology                                      | .69        | Dual-listed Courses                        | .81                      |
| Radiologic Technology                           | .70        | Grades                                     | .82                      |
| Social Science                                  | .70        | GPA Requirement                            | .82                      |
| Sociology                                       | .71        | Student Termination                        | .82                      |
| Spanish   | .71        | Program Time Limits                        | .82                      |
| Speech  | .71        | Thesis                                     | .82                      |
| Technical Integration                           | .72        | Written Comprehensive Examinations         | .83                      |
| Theatre   | .73        | Plagiarism                                 | .83                      |
| Transportation Services                         | .73        | Graduation Checklist                       | .83                      |
| <b>Center for Teacher Education (Licensure)</b> | <b>.76</b> | Research Activities                        | .84                      |
| Elementary Education Licensure                  | .76        | Sponsored Programs                         | .84                      |
| Associate of Arts: Early Childhood Emphasis     | .76        | Human Subjects and Animal Research         | .84                      |
| Secondary Education Licensure                   | .76        | Research Misconduct                        | .84                      |
| K-12 Education Licensure                        | .76        | Master of Business Administration          | .85                      |
| Post-Baccalaureate Licensure Options            | .77        | Admission to the M.B.A. Program            | .85                      |
| <b>College-wide Academic Offerings</b>          | <b>.78</b> | M.B.A. for Those Without a Business Degree | .85                      |
| Academic Honors Program                         | .78        | Internship/Management Practicum/Thesis     | .85                      |
| Cooperative Education                           | .78        | Program of Study                           | .85                      |
| Freshman Year Initiative Program                | .78        | General Policies                           | .86                      |
| Independent Study                               | .79        | <b>Course Descriptions</b>                 | <b>.87</b>               |
| Teacher Education                               | .79        | <b>Administration and Faculty</b>          | <b>.166</b>              |
| Topics Courses                                  | .79        | <b>Campus Map</b>                          | <b>.174</b>              |
| Undergraduate Preparatory Courses               | .79        | <b>College Facilities</b>                  | <b>.175</b>              |
| <b>Graduate Programs</b>                        | <b>.80</b> | <b>Glossary</b>                            | <b>.176</b>              |
| General Admissions Policies and Procedures      | .80        | <b>Index</b>                               | <b>.179</b>              |
| Admissions Criteria                             | .80        | <b>Campus Directory</b>                    | <b>Inside Back Cover</b> |
| Admissions Procedures                           | .80        |  |                          |
| Application and Admission Deadlines             | .80        |  |                          |

## GENERAL INFORMATION

### An Overview of Mesa State College

The founding of Grand Junction State Junior College in 1925, with 39 students enrolled in seven classes, marked the beginning of post-secondary education on Colorado's Western Slope. As Mesa County Junior College, the number of students grew to 270 by fall 1937; headcount increased to 1,300 by 1963. Over that period, the range of community college programs expanded, and an area vocational school was added in 1967. By 1974, the college had evolved into a baccalaureate-granting institution, leading enrollment to triple in 16 years and reach 3,891 in fall 1979.

Finally, in 1994, the Colorado legislature authorized Mesa State to offer selected graduate degrees as needs of the region demand. With the addition of graduate programs, Mesa State College became the only four-year institution in Colorado to offer a full-range of undergraduate programming that spans vocational certificates, associate degrees (both academic and vocational), and baccalaureate degrees to master's degrees.

The role and mission of the College was reenacted in 2003 by the Colorado General Assembly (Colorado Revised Statutes 23-53-101):

There is hereby established a College at Grand Junction, to be known as Mesa State College, which shall be a general baccalaureate and specialized graduate institution with moderately selective admissions. Mesa State College shall offer liberal arts and sciences programs and a limited number of professional, technical, and graduate programs. Mesa State College shall also maintain a community college role and mission, including vocational and technical programs. Mesa State College shall receive resident credit for two-year course offerings in its commission-approved service area. Mesa State College shall also serve as a regional education provider.

With the college's designation by the legislature in 2003 as a Regional Education Provider, Mesa State was assigned the responsibility of meeting the educational needs for 14 Western Slope counties: Delta, Eagle, Garfield, Grand, Jackson, Mesa, Moffat, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Miguel and Summit.

The Mesa State College community aspires to provide an environment which promotes a wellness lifestyle free of addictive behaviors. It shall be a goal of Mesa State College to maintain a healthy campus atmosphere conducive to learning and personal safety.

Mesa State College is a democratic center of learning dedicated to the improvement of human capability. The College extends its services to anyone regardless of age, race,

color, national origin, religion, sex, disability, veteran status, or sexual orientation. Committed first to instruction, as well as service and research, the College seeks to improve the unique talents and sense of social responsibility of each student.

By promoting the acquisition of skills as well as the discovery and application of knowledge, the College develops the intellectual, ethical, and aesthetic sensibilities that enable a student to pursue a rewarding career and assume a responsible and productive role in society. The College seeks to liberate persons from narrow interests and prejudices, to help them observe reality precisely, to judge opinions and events critically, to think logically, and to communicate effectively. The College offers programs of value in areas of civic and cultural life, research, and recreation and desires to play a constructive role in improving the quality of human life and the environment.

### Accreditation

Mesa State College is accredited by The Higher Learning Commission and a member of the North Central Association of Colleges and Schools. Accreditation by this agency places credits earned at Mesa State College on a par with those earned at other similarly accredited institutions throughout the United States. Various programs at Mesa are approved by appropriate state and national agencies:

- Human Performance and Wellness-Athletic Training Education Program: Committee on Allied Health Education of the American Medical Association;
- Nursing: Colorado Board of Nursing and American Association of Colleges of Nursing;
- Radiologic Technology: Committee on Allied Health Education of the American Medical Association;
- Teacher Education: National Council for Accreditation of Teacher Education (provisional).

### Mesa State College Montrose Campus

Located at the Buell Higher Education Campus in Montrose, the campus offers students the opportunity to complete an associate degree, or work toward their baccalaureate degree by completing the general education component. A limited selection of upper division coursework is offered via distance technology. The Montrose Campus offers coursework primarily in the afternoons and evenings to meet the needs of both traditional and working students. In addition to the classrooms and office, the campus houses two computer labs and a telecommunications classroom.

The campus's office is open from 8:00 a.m. to 5:00 p.m., Monday through Friday; phone (970) 249-7009. All student services are available at the office (admissions, assessment,



financial, and business). Academic advising services are available by appointment.

### **Mesa State College UTEC Campus**

The Tilman M. Bishop Unified Technical Education Campus (UTEC) of Mesa State College is the result of a partnership of the college, Mesa County Valley School District 51, and area businesses. The applied technology programs serve the technical education needs of both college and area high school students, primarily those in District 51.

Mesa State students at UTEC can earn two-year associate degrees or certificates of occupational proficiency. High school students earn elective credits and, in many of the programs, can earn college credits while still in high school. Among the services available at UTEC are college admissions, class scheduling, academic and interest assessments, resume preparation, job interviewing skills and placement in internships and jobs. For more information about UTEC, call (970) 255-2600 or toll free, (888)455-2617.

### **Diversity Statement**

Following is the statement of philosophy on diversity which has been adopted by the faculty at Mesa State College:

“Mesa State College is a community of scholars in the liberal arts tradition. As faculty we believe that all people, regardless of age, race, color, national origin, religion, sex, disability, veteran status, or sexual orientation, have something worthwhile to contribute and that these contributions benefit us all. Therefore, we intend that within our academic community all cultural differences will be treated with equal respect and tolerance. We desire that our students have the opportunity to appreciate the diversity of our modern world, and we encourage them to partake of the resources available within our community. As faculty we pledge ourselves to provide as many divergent cultural experiences for our students as the resources of the college and the needs of our disciplines allow.”

“To further tolerance and appreciation of our society’s diversity, Mesa State requires that all graduates fulfill General Education requirements. In doing so we honor the validity of a liberal education. We hope that the experience will help our students understand how to appreciate the true diversity of the world. Because diversity promotes multiple opinions, techniques, viewpoints and approaches, it is not the individual courses within the General Education program which we believe will further the above-stated goals, but the whole experience of the program itself.”

### **Student Bill of Rights**

The Colorado General Assembly implemented the Student Bill of Rights to assure that students enrolled in public institutions of higher education have the following rights:

1. A quality general education experience that develops competencies in reading, writing, mathematics, technology and critical thinking through an integrated arts and science experience.
2. Students should be able to complete their associate of arts and associate of science degree programs in no more than sixty credit hours or their baccalaureate programs in no more than one hundred twenty credit hours unless there are additional degree requirements recognized by the commission;
3. A student can sign a two-year or four-year graduation agreement that formalizes a plan for that student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the commission;
4. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;
5. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;
6. Students, upon successful completion of core general education courses should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;
7. Students have a right to know if courses from one or more public higher education institutions satisfy the students’ graduation requirements;
8. A student’s credit for the completion of the core requirements and core courses shall not expire for ten years from the date of initial enrollment and shall be transferable.

### **Degrees and Programs of Study**

Mesa State College offers programs leading to awards in four levels—certificates of occupational proficiency, associate degrees, baccalaureate degrees, and at the graduate level, the master’s degree. The matrix at the end of this section provides an overview of the offerings at each level.

General requirements for each degree and certificate program are listed in the graduation requirements and the programs of study sections of this catalog. While these general requirements are as correct and current as possible at the time of publication, some changes may occur as programs are updated. Students seeking a specific degree or certificate must obtain a program sheet from the appropriate academic department detailing specific and current requirements for the award being sought and are responsible for meeting them.

Baccalaureate degrees offered by Mesa State College are:

- Bachelor of Arts (B.A.)
- Bachelor of Applied Science (B.A.S.)
- Bachelor of Business Administration (B.B.A.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Science (B.S.) and
- Bachelor of Science in Nursing (B.S.N.).

Concentrations are available within the baccalaureate degrees.

Pre-Health Science Preparation: Admission to the study of dentistry, medicine, optometry, physical therapy, and veterinary medicine usually requires the completion of a baccalaureate degree. Students planning to enter one of these health fields should declare a major in one of the sciences after consultation with a faculty advisor.

Associate degrees are awarded in two broad areas:

- Associate of Arts or Associate of Science (A.A., A.S.) degrees are available in a number of emphases at Mesa State College. Students enrolling in these degrees may be preparing for immediate employment upon graduation or they may expect the two-year degree to be the first phase of their total educational goals. All A.A. and A.S. degrees include the statewide common core of general education curriculum and, when completed successfully, meet the lower-division general education requirements of most baccalaureate degree programs in Colorado.

Students planning careers in engineering, forestry, medical technology, or pharmacy are encouraged to complete either an Associate of Arts or Associate of Science program in one of the science emphasis areas at Mesa State, followed by two additional years of study at another institution for the baccalaureate degree.

- Associate of Applied Science (A.A.S.) degrees are offered in a variety of technical and vocational programs.

Certificates of Occupational Proficiency are technical in nature and normally chosen by students whose immediate plans are to begin a career. These programs are designed to train for specific skills required for employment in various technical occupations.

Additionally, non-credit continuing education programs directed toward personal, civic, vocational, and professional self-improvement are offered through the college's Community Education Center.



## PROGRAMS OF STUDY

| Programs of Study                  |  | Level of Award |           |               |          |       |
|------------------------------------|--|----------------|-----------|---------------|----------|-------|
|                                    |  | Certificate    | Associate | Baccalaureate | Graduate | Minor |
| Accounting                         | Concentrations: Public Accounting; Information Technology  |                |           | B.S.          |          | M     |
| Administrative Office Technology   | Emphases: Accounting Technician; Administrative Secretary; Legal Secretary; Medical Secretary  | C              | A.A.S.    |               |          |       |
| Art                                | Concentrations: Studio Art; Graphic Design   |                |           | B.F.A.        |          | M     |
|                                    | K-12 education licensure (see teacher education below)   |                |           | B.F.A.        |          |       |
| Biology                            | Biology  |                |           | B.S.          |          | M     |
|                                    | Secondary education licensure (see teacher education below)  |                |           | B.S.          |          |       |
| Business Administration            | Concentrations: Economics; Finance; Management; Marketing; Travel, Tourism, & Recreation   |                |           | B.B.A.        |          | M     |
| Business Administration            |  |                |           | B.A.S.        |          |       |
| Business Administration            |  |                |           |               | M.B.A.   |       |
| Classical Studies                  |  |                |           |               |          | M     |
| Computer Information Systems       |  |                |           | B.S.          |          | M     |
| Computer Science                   |  |                |           | B.S.          |          | M     |
| Criminal Justice                   |  |                | A.A.S.    |               |          |       |
| Culinary Arts                      |  | C              | A.A.S.    |               |          |       |
| Electric Lineworker                |  | C              |           |               |          |       |
| English                            | Concentrations: Literature; Technical & Professional Writing; Writing  |                |           | B.A.          |          | M     |
|                                    | Secondary education licensure (see teacher education below)  |                |           | B.A.          |          |       |
| Environmental Science & Technology | Concentrations: Environmental Restoration & Waste Management; Environmental Science  |                |           | B.S.          |          | M     |
|                                    | Secondary education licensure (see teacher education below)  |                |           | B.S.          |          |       |
| Geographic Information Systems     |  |                |           |               |          | M     |
| History                            | History  |                |           | B.A.          |          | M     |
|                                    | Secondary education licensure (see teacher education below)  |                |           | B.A.          |          |       |
| Human Performance & Wellness       | Concentrations: Adapted Physical Education; Athletic Training; Exercise Science; Sport & Fitness Management  |                |           | B.A.          |          | M     |
|                                    | K-12 education licensure (see teacher education below)   |                |           | B.A.          |          |       |
| International Studies              |  |                |           |               |          | M     |
| Liberal Arts                       | Emphases: Administrative Office Technology; Business Administration; Computer Information Systems; Early Childhood Education; Humanities; Social Science |                | A.A.      |               |          |       |
| Liberal Arts                       | Emphases: Biology; Computer Science; Electronic Engineering Technology; Manufacturing Technology; Mathematics; Geology; Physics                          |                | A.S.      |               |          |       |
| Liberal Arts                       | Liberal Arts   |                |           | B.A.          |          |       |
|                                    | Elementary education licensure (see teacher education below)   |                |           | B.A.          |          |       |

## PROGRAMS OF STUDY

| Programs of Study  |   | Level of Award |           |               |          |       |
|--|---|----------------|-----------|---------------|----------|-------|
|  |   | Certificate    | Associate | Baccalaureate | Graduate | Minor |
| Manufacturing Technology   | Emphases: Computer-aided Design Technology; Machining Technology; Welding                   | C              | A.A.S.    |               |          |       |
| Mass Communications  | Concentrations: Broadcasting; News/Editorial; Print Media; Public Relations/Advertising     |                |           | B.A.          |          | M     |
| Mathematics  | Concentrations: Mathematics; Statistics   |                |           | B.S.          |          | M     |
|  | Secondary education licensure (see teacher education below)                                 |                |           | B.S.          |          |       |
| Music  | Concentration: Performance  |                |           | B.A.          |          | M     |
|  | K-12 education licensure (see teacher education below)                                      |                |           | B.A.          |          |       |
| Nursing  |   |                | A.A.S.    | B.S.N.        |          |       |
| Philosophy   |   |                |           |               |          | M     |
| Physical Sciences  | Concentrations: Chemistry; Environmental Geology; Geology; Physics                          |                |           | B.S.          |          | M     |
|  | Secondary education licensure (see teacher education below)                                 |                |           | B.S.          |          |       |
| Political Science  | Concentrations: Political Science; Administration of Justice                                |                |           | B.A.          |          | M     |
| Psychology   | Concentrations: Counseling Psychology; Psychology   |                |           | B.A.          |          | M     |
| Radiologic Technology  |   |                | A.A.S.    |               |          |       |
| Social Science   |   |                |           | B.A.          |          |       |
| Sociology  | Concentrations: Anthropology; Criminology; Human Services; Sociology                        |                |           | B.A.          |          | M     |
| Spanish  | Concentrations: Applied Professional Spanish; Literature & Language                         |                |           | B.A.          |          | M     |
| Speech   |   |                |           |               |          | M     |
| Teacher Education: Students must complete degree requirements in one of the following programs of study in addition to required coursework through the Center for Teacher Education: |   |                |           |               |          |       |
| Elementary Education: Liberal Arts (B.A.)  |   |                |           |               |          |       |
| Secondary Education: Biology (B.S.); English (B.A.); Environmental Science & Technology (B.S.); History (B.A.); Mathematics (B.S.); Physical Sciences - Geology (B.S.)               |   |                |           |               |          |       |
| K-12: Art (B.A.); Human Performance & Wellness (B.A.); Music (B.A.)  |   |                |           |               |          |       |
| Post-Baccalaureate Licensure: Requires education coursework in addition to leveling courses  |   |                |           |               |          |       |
| Technology Integration   | Emphases: Certified Electronics Technician; Network Technician; Telecommunications Engineer |                | A.A.S.    |               |          |       |
| Theatre  | Concentrations: Acting/Directing; Dance; Design/Technical; Music Theatre                    |                |           | B.A.          |          | M     |
| Transportation Services  | Emphases: Automotive Technology; Diesel Technology  | C              | A.A.S.    |               |          |       |
| Watershed Science  |   |                |           |               |          | M     |

## UNDERGRADUATE ADMISSION INFORMATION

### Contact Information

Office of Admissions, Mesa State College, 1100 North Avenue, Grand Junction CO 81501-3122. Call toll free (800) 982-MESA or (970) 248-1875.

### Undergraduate Admission Procedures

#### How to Apply

To be considered for admission, undergraduate applicants should submit the Application for Undergraduate Admission along with a \$30 non-refundable application processing fee. For quicker processing, prospective students are highly encouraged to submit applications electronically via the Mesa State College web site at [www.mesastate.edu](http://www.mesastate.edu). To allow sufficient processing time, please submit applications at least a month prior to the start of classes for the fall and two weeks prior to the start of classes for the spring and summer. Upon receipt of a completed admissions application and supporting documentation, applicants will be notified of their admissions status by letter. To request an admissions application from Mesa State, please call toll free (800) 982-MESA or (970) 248-1875.

High school students may apply as early as the completion of their junior year. In general, freshman applicants applying for a baccalaureate program having earned a minimum grade point average of 2.40, a composite of 19 on the ACT, or 880 combined on the SAT, may be admitted to Mesa State. In keeping with the college's two-year role and mission, admission at Mesa State College for applicants applying for an Associate of Arts or Associate of Science degree program is fairly liberal. Generally, these applicants have earned a minimum grade point average of 2.1, a composite of 19 on the ACT, or a combined 880 on the SAT. Applicants applying for admission into an Associate of Applied Science degree program or a certificate program can be assured admission with reasonable preparation.

Admission does not assure acceptance of an individual student into a particular course or program. Admission to the College does not, therefore, imply entry into any program which has selective admission standards. Some students may be requested to enroll in special courses for correction of scholastic or other deficiencies. Minimum skill levels are required for admission to even basic courses.

Based on a student's academic record, some students requesting admission into a baccalaureate program may be admitted into a Mesa State associate degree or certificate program for which they qualify. Students may later request transfer into a baccalaureate degree program after successfully completing a minimum of 30 semester credit hours and a cumulative grade point average of 2.3 or better or after earning an associate degree.

### Probationary Admission Status

Any student admitted to Mesa State College on probationary status must earn a minimum 2.00 GPA the first semester or be placed on academic suspension and will not be eligible to return to Mesa State College as stated under the academic suspension guidelines.

### Residency Status for Tuition Purposes

A student's tuition classification is governed by state law. For further information regarding tuition classification, please see the Expenses at Mesa State College section of this catalog, or contact the Tuition Classification Officer located in the Admissions Office at (970) 248-1458.

### Admission Procedures by Student Classifications

Specific admission procedures for high school students, GED certificate students, home school students, transfer students, non-traditional students, and other student classifications are as follows:

#### Current High School/First-Time Freshmen Students

1. Obtain and complete an Application for Undergraduate Admission to Mesa State College. For quicker processing apply online at [www.mesastate.edu](http://www.mesastate.edu).
2. Submit a non-refundable \$30 application fee with your admissions application.
3. Request that the high school counselor forward official transcripts directly to the Mesa State College Admissions Office, 1100 North Avenue, Grand Junction CO 81501-3122. If you apply for admissions prior to high school graduation, please realize that Mesa State College requires a final high school transcript showing a graduation date. Please remember to ask your counselor to forward one at that time.
4. Take either the American College Test (ACT) or Scholastic Aptitude Test (SAT) and request that the results be sent directly to Mesa State College. ACT or SAT test scores are required of any student under the age of 23, but not needed for students applying for a certificate program.
5. Optional letters of recommendation and a personal essay may also be submitted.

#### General Educational Development (GED) Certificate Students

1. Obtain and complete an Application for Undergraduate Admission to Mesa State College, or for quicker processing apply online at [www.mesastate.edu](http://www.mesastate.edu).
2. Submit a non-refundable \$30 application fee with your application.
3. Submit a copy of the GED test scores.

4. Take the American College Test (ACT) or Scholastic Aptitude Test (SAT) and request that the results be sent directly to Mesa State College. ACT or SAT test scores are not required of any student 23 and over and not needed for students applying for a certificate program.

Applicants who successfully complete the GED with a minimum score of 450 and appropriate ACT or SAT test scores (if needed, as outlined above) may be admitted to Mesa State College. Admission to particular programs is contingent on meeting specific admission requirements for those programs.

**Home Schooled Students**

1. Obtain and complete an Application for Undergraduate Admission to Mesa State College, or for quicker processing apply online at [www.mesastate.edu](http://www.mesastate.edu).
2. Submit a non-refundable \$30 application fee with your admissions application.
3. Submit copies of all nationally standardized test results (achievement tests), if available.
4. Provide a transcript evaluation form (available in the Admissions Office) or an outline of all courses taken at the high school level. Students may also submit a portfolio to describe their high school education. Please also submit transcripts of any courses taken at a traditional high school.
5. Take either the American College Test (ACT) or Scholastic Aptitude Test (SAT) and request that the results be sent directly to Mesa State College. ACT or SAT test scores are required of any student under the age of 23, but not needed for students applying for a certificate program.

**Non-Traditional Students**

Students who are 23 years of age or older when applying for admission are not required to submit ACT or SAT test scores. However, if the student did complete the ACT or SAT, we can utilize that score even if the test was not completed in recent years. Students who do not submit ACT or SAT test scores will be considered for admission into a 2-year associate degree or certificate program.

If the ACT or SAT is older than three years, or no ACT or SAT is submitted, the student will be required to complete the Accuplacer assessment for math and English placement. Accuplacer is administered by the college’s Testing Center. For questions regarding Accuplacer, please call the Office of Academic Advising.

Note: Students applying to the Radiologic Technology program are required to complete the ACT for admission to this program.

**Transfer Students**

Students considering transferring to Mesa State College should contact the Center for Transfer Services or the Admissions Office for help with the admissions and evaluation processes.

1. Obtain and complete an Application for Undergraduate Admission to Mesa State College.
2. Submit the application along with a non-refundable \$30 application fee.
3. Request that each previously attended college or university send official transcripts to the Mesa State College Admissions Office. Mesa State College will not consider any transcript as official unless it is sent directly from the issuing institution to Mesa State College.
4. If fewer than 30 semester hours of prior college course work has been completed,
  - a. Request that the high school send official transcripts directly to the Mesa State College Admissions Office. (GED scores will be required if applicant did not graduate from high school.)
  - b. ACT or SAT test scores must be on file before the admission process is complete unless the student is 23 years of age or older.

Transfer students may be admitted into most baccalaureate degree programs if they are in good standing at another regionally accredited college or university and have a minimum cumulative grade point average of 2.3 for 13 or more semester credit hours. In calculating the cumulative admission grade point average, Mesa State College will compute a transfer GPA based on prior college transcript(s). If the student has attended more than one prior institution, the GPA of each is summed together for a total cumulative admission GPA.

Transfer students who are on probation or suspension from another college or university, or have a cumulative GPA below 2.3, will not be admitted into a baccalaureate degree program but may be considered for admission into a Mesa State College associate degree program. If admitted, transfer students who are on probation or suspension from another college may be placed on probation at Mesa State College.

An evaluation of transfer courses is made once the student’s application file is complete. Credit evaluations are completed in the Office of the Registrar, with the assistance of department heads.

It is Mesa State College’s policy to accept academic credits from:

1. All public colleges and universities in the state of Colorado, provided they are currently regionally accredited. This applies regardless of the institution’s accreditation status at the time the credit was earned.
2. Private and out-of-state colleges and universities, provided the institution is currently regionally accredited

and was accredited or was a candidate for accreditation at the time the credit was earned.

3. Regionally accredited two-year community or junior colleges.
4. Regionally accredited institutions that award “S” or “P” grades, if the granting institution states that such grade is equal to a grade of “C” or better.

Regional accrediting bodies are as follows:

- Middle States Association of Colleges and Schools
- New England Association of Schools and Colleges
- Northwestern Association of Schools and Colleges
- North Central Association of Schools and Colleges
- Southern Association of Schools and Colleges
- Western Association of Schools and Colleges

Only credits with a grade of “C” or better are eligible to be used toward a degree or certificate.

Mesa State College reserves the right to evaluate, on a course-by-course basis, any credits earned 15 years or more prior to enrollment. Initially, only courses used to fulfill general education requirements will be accepted in transfer. Other courses will be transferred upon acceptance by the department head within the major.

International transfer students must provide the appropriate transcript of courses (or grade reports, exam results, degree awards, depending on the standard of the particular country) before transfer credit can be determined. Original documents must be presented. Documents that cannot be replaced will be returned to the student once evaluation is complete. Documents in English are preferred but those in other languages will be accepted when accompanied by an official, verified translation. In most cases, course descriptions or syllabi are required to determine content of individual courses.

Transfer students may also wish to request the Tips for Transfer Students handout or review the same information on the Mesa State College web site.

### Returning Students

A returning student (any student who has previously attended Mesa State College and has been out for at least one semester, summer term excluded) must complete a Returning Student Application Form. The form may be obtained at the Mesa State College Registrar’s Office or the college’s Web site. If the student has attended another institution since last attending Mesa State College, official transcripts of all work must be sent directly to Mesa State College Registrar’s Office from each institution attended. See Catalog Under Which a Student Graduates section to determine the catalog to be followed for graduation.

Students wishing to return after being on suspension must submit a returning student application to the Registrar’s

Office at Mesa State College to be considered for re-admission. See the Academic Suspension section.

### Non-Degree-Seeking Students

Students who do not wish to pursue a degree or certificate at Mesa State College may apply as non-degree seeking rather than being formally admitted to the College. Policies and guidelines include:

1. Applicants must be at least 20 years old. An exception to the age requirement applies to those students who wish to enroll in Mesa State College courses while away from their “home” institution during summer break.
2. Applicants must complete the Mesa State College Application for Undergraduate Admission, checking the non-degree seeking student box, and submit it along with a non-refundable \$30.00 application fee.
3. Students who do not wish to pursue a degree or certificate are not required to submit high school or college transcripts or test scores.
4. Non-degree seeking students are not eligible for financial aid or scholarships and will not be assigned an advisor.
5. Non-degree seeking students must consistently earn a minimum semester grade point average of 2.00 while enrolled at Mesa State College. Students who fail to achieve the minimum must apply for admission as a degree seeking student to continue taking classes.
6. Non-degree seeking students who earn 30 semester hours must apply for admission to Mesa State College as a degree seeking student.
7. Degree seeking students will have priority over non-degree seeking students regarding registration.

Non-degree seeking students have not been formally admitted to Mesa State College and are not guaranteed admission should they later make formal application as degree seeking.

Once non-degree seeking students apply for formal admission to Mesa State College, the admission policies in effect at the time of formal application will be used to determine admissibility into the college and general and/or specific academic programs. This includes satisfying all requirements for admission assessment tests such as the ACT or SAT or, for certificate students and students over age 23, the alternative assessment test.

### International Students

To be considered for admission, students who are not U.S. citizens or resident aliens must complete and submit the following to the Mesa State College Admissions Office, 1100 North Avenue, Grand Junction CO 81501-3122 prior to May 1 for fall semester and by September 1 prior to spring semester:

1. International Student Application form with \$30 non-refundable application fee;

2. Copy of American College Test (ACT) scores or Scholastic Aptitude Test (SAT) scores and proof of English proficiency;
3. Official secondary school transcript (transcripts not issued in English must be accompanied by exact English translations);
4. Transcripts from all other colleges or universities attended. (See Transfer Students section);
5. Affidavit of financial support and an official bank statement showing proof of funds;
6. Evidence of medical insurance (Students who do not have proof of medical insurance will be required to purchase Mesa State College student health and accident insurance.)
7. For registration purposes, all international students are required to comply with the Colorado law on measles, mumps and rubella. A Mesa State College official form must be completed and returned to the Admissions Office.

Prospective international students who are seeking admission to Mesa State College and whose primary language is not English, must provide documented evidence of ability to read, write, speak, and understand the English language. This requirement may be fulfilled in one of the following ways:

1. Submission of scores of Test of English as a Foreign Language (TOEFL) with a minimum average of 525 (paper based) or 190 (computer based).
2. Submission of scores of International English Language Testing System (IELTS) with a minimum of Band 6.
3. Submission of results of Michigan Test of English Language with a minimum score of 80.
4. An international student who has been enrolled as a full-time student at another college or university in the United States may request consideration of fulfillment of this requirement on an individual basis.
5. Other evidence will be considered on an individual basis.

Before admission is granted, an international student must provide proof of financial ability to meet cost of tuition, fees, books, living accommodations, health insurance and incidental expenses for at least one full year. The total cost per student is approximately \$19,165 per calendar year (12 months).

Additional information and forms may be obtained from the International Counselor.

**Early Scholars Program**

Currently enrolled high school juniors and seniors may be allowed to register for college classes that are not replicated through the school district curriculum under guidelines from House Bill 1244. In order to qualify for the Early Scholars Program (either as a Concurrent or Fast Track student), students must have all of the following in order to be considered:

1. 3.0 or higher cumulative GPA;
2. Grades of “B” or better in at least two courses in the academic area to be taken;
3. ACT English score of 18 or better; or SAT Verbal score of 440 or better; or PLAN English score of 18 or better; or PSAT Critical Reading score of 44 or better (students may take the Accuplacer placement assessment if the above tests have not been taken);
4. ACT Math score of 19 or better; or SAT Math score of 470 or better; or PLAN Math score of 20 or better; or PSAT Math score of 47 or better (students may take the Accuplacer placement assessment if the above tests have not been taken).

In some cases, the school district or the Department of Education will pay the tuition of the student to attend Mesa State College (summer school excluded). Students are always responsible for payment of any and all fees, books, and supplies. The student is responsible for payment of tuition not covered by the school district or the Department of Education. Students must give notice to the high school 60 days before the beginning of the semester they wish to enroll and have all information submitted to the Mesa State College Admissions Office.

All students wishing to become concurrently enrolled at Mesa State College must be enrolled in high school (or, if home schooled, be at the senior or junior level) and must submit the Early Scholars Program Application to the Mesa State College Admissions Office along with the following information:

- Official high school transcripts (or, if home schooled, a grade report meeting above criteria)
- Scores from the tests outlined above
- \$30 non-refundable application fee (if a first-time applicant)
- Proof of two measles, mumps & rubella vaccinations (not required for students enrolled in classes taken in their high schools)

Students should understand that being a concurrently enrolled student does not guarantee acceptance to Mesa State College, nor does Mesa State College guarantee that the approved classes will be available upon registration. Before registering for a specific course, students must fulfill the prerequisites listed in the current Mesa State College catalog.

For questions related to student admission into the Early Scholars Program, please contact the Admissions Office.

**Precollegiate Curriculum Requirements**

Effective with students who graduate from high school in spring 2008 and later, the admissions policy of the Colorado Commission on Higher Education (CCHE) requires the completion of a precollegiate curriculum for admission to a four-year Colorado public college or university. The initial



phase will be implemented in 2008, with a second phase to follow in 2010. Details are available from the CCHE website at:

<http://www.state.co.us/cche/academic/admissions/index.pdf>

### Confirmation of Attendance

Admitted students (first time freshmen and first time transfers) will receive a packet of information regarding the student's "next steps." The packet highlights important dates, housing information, payment information, SOAR (Student Orientation, Advising and Registration) dates, important phone numbers and many other necessary details about enrolling at Mesa State College. Contained within this packet is a Confirmation Form and deposit information.

As soon as a student knows that they will be enrolling at Mesa State College, he/she should submit the Confirmation Form stating their intent to enroll. If an admitted student plans to attend a different college, he/she can use the Confirmation Form to notify Mesa State. The Confirmation Form also requests a \$50 deposit, which will be applied directly towards a student's tuition. The deposit can be waived in cases of extreme hardship by making a formal written request and submitting it with the Confirmation Form. The deposit may be refunded up until May 1 prior to the fall enrollment date and December 1 prior to the spring enrollment date. Such requests must be made in writing to Mesa State College Admissions Office, Director of Admissions. The deposit will be refunded if the student also has withdrawn from any courses for which they registered.

### Admission to Specific Undergraduate Programs

Some baccalaureate, associate, and certificate programs may have specific entrance requirements in addition to general college admittance. Admission to Mesa State College does not guarantee admission into an academic program. More information is available in this catalog in the Academic Program section. Prospective students should check with the department head of the specific academic program, such as those below, for special requirements:

- Accounting
- Athletic Training
- Business Administration
- Computer Information Systems
- Electric Lineworker
- Music
- Nursing
- Radiologic Science

### Undergraduate Admission Assessment and Counseling Tests

#### ACT or SAT

Scores from either the ACT or the SAT are required of all degree-seeking students attending Mesa State College. Test

scores must be on file in the Admissions Office before official acceptance is granted. Certificate seeking students are required to have ACT or SAT scores on file or to have taken the alternative assessment test (see Alternative Admission Assessment section below). A student's attainment of a certain ACT composite score, or SAT combined score is one of several criteria considered for admission. Certain programs, including Radiologic Sciences, may require a minimum ACT or SAT score. For specific requirements, contact the appropriate academic department head.

ACT and SAT test results also are used by the student and advisor as the basis for planning a course of study and as an aid in academic placement. Supplemental academic assistance is provided on a limited basis for those whose test scores indicate weaknesses or deficiencies in certain areas such as English and mathematics. ACT and SAT scores also may be used for scholarship consideration and institutional research.

The only exemptions to this admission requirement are for:

1. Students who are 23 years of age or older when they apply for admission;
2. Students enrolled only in non-credit desired/audit classes;
3. Non-degree seeking students (students under the age of 21 cannot be non-degree-seeking during the fall and spring semesters);
4. Students who have already earned an associate or baccalaureate degree at another regionally accredited institution;
5. Students who are transferring from other regionally accredited colleges or universities with 30 or more semester hours of credit. (This does not apply to applicants to the Nursing and Radiologic Sciences programs and any other programs that may require a specified ACT or SAT score as an entrance requirement.)

Prospective students are encouraged to take the ACT or SAT during their high school senior year. Transfer students (unless exempt) are required to have their ACT or SAT scores on file in the Admissions Office prior to registration. ACT or SAT scores from a previous college or university are acceptable.

A special residual ACT test is scheduled prior to registration each semester for applicants seeking admission to Mesa State College but did not take the ACT on one of the national test dates. A prepaid, non-refundable testing fee of \$80 is due no later than one week prior to the examination date and will be collected by the Testing Center. Test results are reported directly to the Admissions Office. ACT residual scores are used for admission to Mesa State College, are not transferable to any other institution, and are not NCAA approved for athletes. Test results will be available to the student's advisor during registration. Contact the Academic Advising Center for further details.

**Alternative Admission Assessment**

Assessment tests are required of students before they enroll in certificate programs of one year or less or as non-degree seeking students. These students may choose:

1. The ACT or SAT
2. An alternative assessment. Certificate and non-degree-seeking students who wish to use this alternative must contact Applied Technology program's office for details and cost information.

Should a certificate-seeking student want to become a degree-seeking student, he or she must comply with all entrance requirements for the new program, including taking the ACT or SAT if the student has not done so.

**Assessment and Evaluation after Enrollment**

Students are required to participate in testing and other programs necessary for evaluation and assessment purposes. Please see the Learning Progress Evaluation section in this catalog.

**Acceleration of College Study**

It is possible for students to satisfy requirements for baccalaureate degrees in less than the traditional four years (eight regular academic year semesters). Ways of accomplishing this include: enrolling in college classes while a junior or senior in high school; exceeding the normal course load at Mesa State College or elsewhere; challenging by examination courses in which competence has previously been attained; earning credit by testing through the College Level Examination Program (CLEP), DANTES and/or Advanced Placement; obtaining credit for work experience

(competency credit). Additional information may be obtained from faculty advisors and the Testing Center.

**Student Orientation, Advising and Registration (SOAR)**

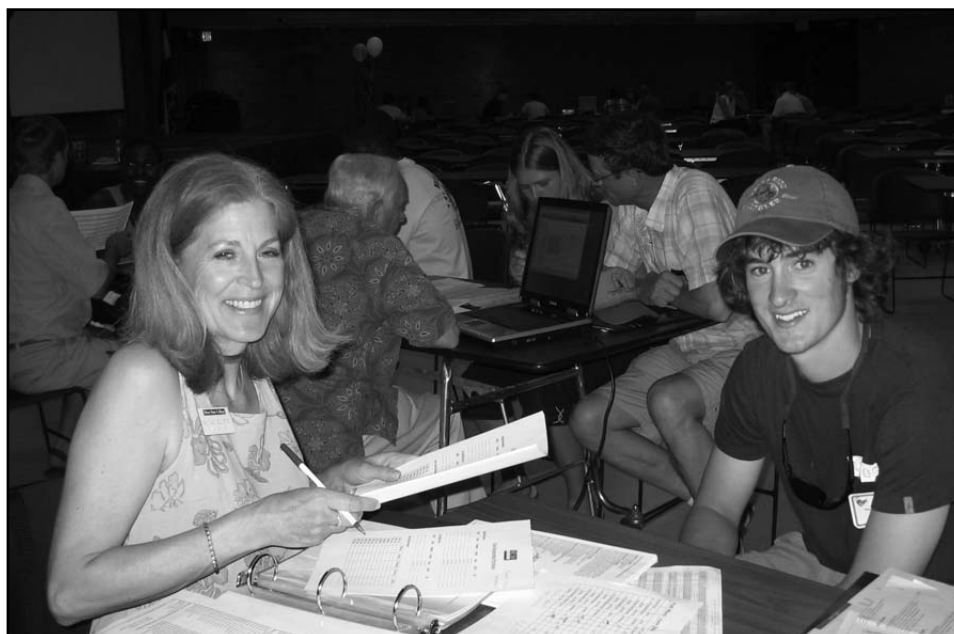
All new degree-seeking incoming freshmen are required to attend a SOAR (Student Orientation, Advising and Registration) program in order to register for their first semester courses. Although not required, new degree-seeking transfer students are strongly encouraged to attend as well. Information regarding SOAR will be mailed to students upon notification of acceptance. SOAR information may also be found on the Mesa State web site at: [www.mesastate.edu](http://www.mesastate.edu).

For proper academic advising and course placement, students with low ACT or SAT scores may be assessed with a second instrument at the SOAR session. For further information, students should contact the Academic Advising Office.

Students must be admitted prior to attending SOAR. For further information, students may call the SOAR hotline at (970) 248-1405.

**Welcome Week**

New students to Mesa State may participate in one of the welcome week programs offered at the beginning of fall and spring semester. The program is designed to introduce new students to the campus, fellow classmates, and the College's programs and facilities. Parents of graduating high school students are encouraged to attend the orientation program. Upon acceptance to Mesa State College, students will receive further details of the welcome week being held for them. For more information contact the Student Activities Office.



## FINANCIAL AID

### Contact Information

Office of Financial Aid, Mesa State College, Lowell Heiny Hall Room 117, 1100 North Avenue, Grand Junction CO 81501-3122 or (970) 248-1396.

### Overview

Financial aid at Mesa State College consists of a balanced program of self help, scholarships and grants-in-aid awarded for outstanding academic achievement or outstanding performance in special skill areas including vocational skills, athletics, drama, music, etc. Mesa State College also participates in federal and state programs of grants, loans, and student employment, the awarding of which is based primarily on need as determined by a needs analysis system approved by the federal government. The application used to determine need is the Free Application for Federal Student Aid.

Financial aid awards that are based on the needs analysis system consider family resources as the primary source of funding for education, with federal and state sources considered secondary and supplemental. Because prospective students always apply for more financial aid than there is money available, the following priority order is used:

1. As stated in federal law, a parent is primarily responsible for payment of educational expenses of a dependent child. Thus, parents of students attending college are expected to make every effort to assist the student financially.
2. The student, as the benefactor of the educational experience, is the next most responsible person for payment of educational expenses.
3. The third level of responsibility is from outside sources such as communities, clubs, corporations, etc.
4. The last resort is federal and state financial aid programs. There has never been enough funding to assist all needy students. Therefore, students should make every effort to obtain assistance at one of the three levels listed above.

Accurate and timely information from the student and parents to the Financial Aid office is the responsibility of the student. Failure on the part of the student to supply all required information on the application may result in reduction or total loss of aid.

### Tuition Payment Plan

Mesa State College provides a payment program designed to meet the specific needs of students and parents. Annual tuition, fees and institutional room and board can be paid in ten monthly installments, beginning July 1 and ending April 1. There is an annual non-refundable application fee, due at the time of enrollment. Contact the Business Office for more information.

### Scholarships

Scholarships represent an effort by the state of Colorado and Mesa State College to recognize resident and non-resident students for outstanding achievement in academic and talent areas. The awards will vary. Although need is not a factor in determining recipients, students who are awarded a scholarship are also encouraged to submit a financial aid application. While there is not a separate academic scholarship application, students may choose to submit an optional essay.

After a student has been admitted to Mesa State College, they will automatically be reviewed for academic scholarship awarding. For more detailed information on academic scholarships, please call the Admissions Office at (970) 248-1875 or the Financial Aid Office at (970) 284-1396. For detailed information regarding talent scholarships, please contact the appropriate academic department.

### Colorado Student Aid Programs

Available to full-time, half-time and part-time students with priority given to full-time students.

1. Colorado Grants—Grants are awarded to Colorado resident students on the basis of documented financial need. Financial aid packages which include Colorado Grants may not exceed the documented financial need of the student.
2. Colorado Work-Study—The Work-Study program is designed to provide employment on campus for students with documented need and who meet the residency requirement for tuition purposes.
3. Colorado Leveraging Education Assistance Program (CLEAP)—This is a program wherein a portion of the grant to a student is provided by the state of Colorado and the other portion by the federal government. Awards are made only to Colorado resident students with need.
4. Colorado Graduate Grants (CGG)—Grants are awarded to Colorado resident students enrolled in a graduate program based on financial need.
5. Governor's Opportunity Scholarship Program—Scholarships offered to Colorado resident students who otherwise could not pursue a college degree due to financial reasons.
6. Supplemental Leveraging Educational Assistance Program—This is a program wherein a portion of the grant to a student is provided by the State of Colorado and the other portion by the Federal government. Awards are primarily for Colorado residents seeking a teaching

degree. Priority is given to students with documented need and who are completing their internship.

### Mesa State College Foundation Programs

The Mesa State College Foundation is a non-profit organization governed by a Board of Directors. The board is comprised of talented and successful business and community leaders who recognize the college's pivotal role in the future of our state and wish to aid deserving students at Mesa State College. This group, which functions independently of the college, raises funds for scholarships, student loans, and a variety of programs that enhance opportunities provided by the college. In addition, the Foundation serves as a receiving and distribution agency for many established scholarships available to the students at Mesa State.

1. Private Scholarships—In addition to institutional scholarships, many scholarships and awards have been established for students of the College by individuals and organizations who recognize the importance of Mesa State to the community and have a connection to the College. The amounts of the awards vary, but all are designed to apply toward tuition and fees. Contact the Office of Financial Aid for additional information.
2. Student Loans—Students may borrow emergency short-term loan funds provided by the Mesa State College Foundation to help meet obligations due to unforeseen situations. By definition, short-term loans are repayable within 90 days or by the end of the semester, whichever comes first. Inquire at the Financial Aid Office for applications and additional information.

### Federal Student Aid Programs

1. Federal Pell Grant Program—This is a grant program available to needy students enrolling in an eligible institution of post-secondary education. The Pell Grant Program is the base program for financial aid at Mesa State College.
2. College Based Programs—Mesa State College participates in many other federal student-aid programs. These include the (1) Federal Perkins Loan Program, (2) Federal Supplemental Educational Opportunity Grant Program, (3) Federal College Work Study Program.
3. Federal Family Education Loan Program—This is a loan program consisting of the Federal subsidized and unsubsidized Stafford Loan Program and the Federal Parent Loan for Undergraduate Students (PLUS). Details concerning these programs may be obtained from the Financial Aid Office.

### General Guidelines

Financial need for educational expenses is an essential requirement to qualify for assistance from most programs.

Students who must have financial aid in order to secure a college education are encouraged to contact the Financial Aid Office for necessary information and application forms. Both full-time and less than full-time students will receive consideration.

Since financial need is the primary requirement for determining eligibility for assistance under any of the federal student aid programs, Mesa State College requires that the student applicant submit the proper application to the federal processor as soon as possible after January 1. FAFSA on the Web is available at <http://www.fafsa.ed.gov>. A paper application is available from high school counselors or may be obtained by writing the Office of Financial Aid at Mesa State College.

Stafford Student Loans are initiated with the FAFSA application but require an additional Master Promissory Note. The MPN is available in electronic form from the Financial Aid page of the Mesa State College Web page at [www.mesastate.edu](http://www.mesastate.edu).

Students must maintain Satisfactory Academic Progress as noted with the Award Notification to remain eligible for financial aid.

### Western Undergraduate Exchange (WUE)

Western Undergraduate Exchange (WUE) is a tuition program which, if awarded, allows students from 13 western states to attend Mesa State College at a reduced tuition rate. Students who are residents from the states of Alaska, Arizona, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming are considered for the award; however, acceptance into this competitive program is not automatic. To be considered for this award, students must be admitted to the College as a new freshman or transfer degree-seeking student in a certificate, associate, or baccalaureate program and provide a copy of their current state driver's license. If awarded, students will receive an award letter outlining the following requirements:

- register in a minimum of 12 credit hours *each* consecutive fall and spring semester;
- maintain a minimum 2.5 cumulative Mesa State College GPA *each* semester, excluding the summer session; and
- complete the WUE reapplication process through the Admissions Office prior to each fall semester. A reapplication letter will be sent to each eligible continuing WUE student in June of each year.

WUE is not available to students during the summer session. Time accrued while receiving the WUE award will not contribute toward the length of time required for establishing Colorado residency status. For more information, contact the Admissions Office at (970) 248-1875.

## EXPENSES AT MESA STATE COLLEGE

Mesa State College reserves the right to adjust any and all charges, including tuition, fees, and room and board, at any time deemed necessary by the Trustees.

### Determination of Residency Status for Tuition

#### Purposes

Tuition classification is governed by state law (Colorado Revised Statutes, Sections 23-7-101 to 104 and 23-7-105) and by judicial decisions that apply to all public institutions of higher education in Colorado. Mesa State College does not have discretion to make exceptions to the rules that are defined by state law. Although an individual may be considered a state resident for voting and other legal purposes after being in the state for a short period of time, the tuition law specifies additional requirements for classification as “in-state” for tuition purposes. A detailed informational brochure regarding tuition classification is available in the Admissions Office, Registrar’s Office, and via the MSC website in PDF downloadable format at [www.mesastate.edu](http://www.mesastate.edu) (click on Admissions, Admissions Forms, and choose Tuition Classification Information in the drop-down box.)

Initial tuition classification is determined from information a student supplies on an application for admissions to Mesa State College. Failure to answer all questions will lead to an initial classification of out-of-state. A student’s residency status will be stated within their admissions letter. New students who feel their classification is incorrect should contact the Admissions Office immediately. Continuing Mesa State students who believe they have subsequently met requirements for in-state status must submit the Petition for In-State Tuition Classification with supporting documentation; a change in classification is not automatic. Petitions and supporting documentation must be submitted to the Admissions Office, Attention Tuition Classification Officer. Students must comply with the following published deadlines for submission of a Petition for In-State Tuition Classification; no petition submitted after a deadline will be considered for the given term.

#### Emancipation

According to Colorado statute, physical presence and intent to be a permanent resident of Colorado must be established for 12 months prior to the first day of class for the qualifying term. The domicile of a student’s parent determines residency for any student who has not yet reached the age of 23, unless the student can establish that he/she is emancipated. Students under the age of 23 who wish to be considered without parental information must submit a Petition for In-State Tuition Classification for review.

Emancipation for students under the age of 23 may be established if a student is married, financially independent, or

is a single parent. If a student can prove emancipation, then the student must complete the Petition for In-State Tuition Classification and attach their supporting documentation when requested.

Should circumstances change affecting a student’s tuition status after a petition is approved, notification of such change must be provided to the Tuition Classification Officer in writing within 15 days after such change.

#### Residency Appeals

Students who do not agree with the decision of the Tuition Classification Officer after review of a petition may appeal the decision. Appeals must be made in writing and directed to the Tuition Classification Officer no later than 15 days from the date the denial decision letter was mailed to the student. The decision of the Residency Appeals Committee is the final college determination. For further residency-related questions, contact the Tuition Classification Officer in the Admissions Office.



**PETITION DEADLINES**

| <b>SEMESTER</b>      | <b>SUBMIT YOUR PETITION<br/>QUALIFYING<br/>CUT-OFF DATE*</b> | <b>NO EARLIER THAN...</b> | <b>BUT NO LATER THAN<br/>PETITION DEADLINE<br/>OF...**</b> |
|----------------------|--|---------------------------|--|
| Fall 2005 Semester   | 1st day of class   | June 22, 2005             | August 3, 2005   |
| Spring 2006 Semester | 1st day of class   | November 16, 2005         | January 2, 2006  |
| Summer 2006 session  | 1st day of class   | March 15, 2006            | 2 weeks prior to 1st day of class                          |

\* **Qualifying Cut-off Date:** The date by which the 12-month physical presence period must have expired in order to possibly be classified in-state for the specified term. The 12-month period begins after a student has completed their move to the State of Colorado and has severed ties to their previous state of legal domicile, not merely when a student arrives in Colorado.

\*\***Petition Deadline:** The Tuition Classification Officer, located in the Admissions Office, must receive fully completed petitions by this date in order to be considered for the semester in question. Petitions received after this date will not be considered for the semester in question. Because a 12-month physical domicile must be proven, petitions will not be reviewed prior to the "No Earlier Than" date listed above.

### Tuition and Fees

The State of Colorado allocates money for Colorado in-state undergraduates to help offset the total tuition of their college education. In the past, the state's share of a student's tuition was paid directly to Colorado public colleges and universities. Beginning fall 2005, the state's share of in-state tuition-paid from the College Opportunity Fund (COF)-is available for students to direct to the institution of their choice once the student signs up for a voucher account. Students are then responsible only for their remaining share of total tuition.

Most in-state undergraduates qualify for participation in the program. Qualifications and the amount of the voucher are subject to actions by the Colorado General Assembly. Students should log into the college's website for current information and additional details available in Mesa State's current Course Schedule and on its website at [www.mesastate.edu](http://www.mesastate.edu).

To create an account, a student must register with the College Access Network (CAN) at:

<http://www.college-access.net>

and provide a limited amount of information. Note that the process of creating a voucher account is separate from applying for admission to Mesa State and can be completed at any time prior to enrolling. Qualifying students who do not establish an account into which the voucher can be deposited are responsible for both the state's plus the student's share of tuition.

Tuition and fees for the 2005-2006 academic year below are estimated as of the time that this catalog was printed. Students should check the college's website for the most current rates and information. Note that summer term pre-

registration is held at the same time as pre-registration for fall term and follows a separate policy regarding refunds.

### Tuition and Fee Schedule

The tuition rates shown below are estimated for academic year 2005-2006; final rates for 2005-2006 will be posted on the college's website when set by the Board of Trustees. The student fees shown below also are estimated rates for 2005-2006, and final rates will be posted on the website when finalized.

#### Examples:

- A. Undergraduate who is full-time, in-state, COF-eligible.  
(Note: 12 credit hours is full-time for financial aid purposes)

|   | <u>Per Semester</u> |
|---|---------------------|
| Total tuition for 12 credit hours each term | \$2,139.48          |
| Less COF (state's share of tuition)         | \$960.00            |
| Equals student's share of tuition           | \$1,179.48          |
| Plus general purpose student fees*          | <u>\$360.45</u>     |
| Equals total due from student               | \$1,539.93          |

- B. Undergraduate who is full-time, out-of-state, non-COF-eligible. (Note: 12 credit hours is full-time for financial aid purposes)

|   | <u>Per Semester</u> |
|---|---------------------|
| Total tuition for 12 credit hours each term<br>(= student's share of tuition) | \$4,772.88          |
| Plus general purpose student fees*  | <u>\$360.45</u>     |
| Equals total due from student   | \$5,133.33          |

|   |                |
|---|----------------|
| C. <u>Undergraduate who is part-time, in-state, COF-eligible.</u>         |                |
| Tuition per credit hour   | \$178.29       |
| Less COF per credit hour (state's share of tuition)                       | -\$80.00       |
| Equals student's share of tuition   | \$98.29        |
| Plus general purpose student fees*  | <u>\$41.22</u> |
| Equals total due from student   | \$139.51       |
| D. <u>Undergraduate who is part-time, out-of-state, non-COF-eligible.</u> |                |
| Tuition per credit hour (= student's share of tuition)                    | \$397.74       |
| Plus general purpose student fees*  | <u>\$41.22</u> |
| Equals total due from student   | \$438.96       |
| E. <u>Graduate student who is in-state.</u>                               |                |
| Tuition per credit hour   | \$122.31       |
| Plus general purpose student fees*  | <u>\$41.22</u> |
| Equals total due from student.  | \$163.53       |
| F. <u>Graduate student who is out-of-state.</u>                           |                |
| Tuition per credit hour   | \$437.35       |
| Plus general purpose student fees*  | <u>\$41.22</u> |
| Equals total due from student.  | \$478.57       |

\*General purpose student fees are per credit hour and include a \$5.00 (\$1.00 CSA, \$4.00 Mass Transit) per semester per student charge. Refer to the Mesa State College Student Handbook for a complete breakdown of the general purpose student fees. A one-time matriculation fee of \$95.00 will be assessed. This fee takes the place of add/drop fees, transcript fees, graduation fees, etc. A surcharge equal to the appropriate credit hour tuition rate will be assessed per semester for each credit hour over 18.

### Student Liability for Tuition and Fees

Upon registration students incur a financial obligation to Mesa State College. Anyone who registers for one or more classes is expected to pay the full amount of tuition and fees, unless they officially withdraw by the specified deadlines listed in the Course Schedule. All charges are due and payable on the first day of class. A 1% service charge will be assessed each month on all outstanding balances. No student will be allowed to register for classes, graduate or receive transcripts until their account is paid in full.

Students are liable for additional late fees and/or collection costs, including attorney fees and other charges necessary for the collection of any overdue financial obligation incurred by the student.

Student financial information is available on the Mesa State College website. If you have any questions, contact the Business Office at (970) 248-1567.

## Other Fees and Expenses

### Books and Supplies

Required textbooks and supplies are sold at the college bookstore, located in the Campbell Center. Other items sold at the bookstore include general books, art and engineering supplies, basic school supplies, calculators, imprinted clothing, magazines, software and gift items.

The approximate cost of textbooks for a single semester is \$400-\$500 but varies with the program of study. Supply costs vary depending upon student preference and course requirements.

Textbooks may be returned within 7 calendar days of purchase, provided the cash register receipt is shown as proof of purchase and the books have not been defaced. Extended return dates at the beginning of fall and spring semesters are posted in the bookstore and on the website.

The bookstore sponsors a book buy-back program that is conducted during the final examination week of fall and spring semesters only. Used books may be available for some classes.

### Application, Evaluation, and Other Fees

|   |          |
|---|----------|
| Undergraduate Application and Evaluation Fee (non-refundable) | \$30.00  |
| Graduate Application and Evaluation Fee (non-refundable)      | \$50.00  |
| Matriculation Fee   | \$95.00  |
| Non-refundable Housing Application Fee                        | \$25.00  |
| Room Reservation deposit/damage deposit                       | \$125.00 |
| Parking permit, non-reserved (per year)                       | \$65.00  |

### Private and Course-Specific Fees

When private and special instructional services are required, additional charges will be incurred by the student. Fees vary with the nature of the instruction. Private instruction in applied music is available from instructors approved by the college. Cost of this instruction is regular per credit hour tuition plus a specified amount for one thirty-minute lesson each week. Other special instructional services and courses that may require students to pay extra fees include labs, courses with transportation fees for field trips, human performance and wellness courses (for locker and towel facilities) and classes such as bowling, skiing and golf.

### Student Health Insurance

Student health insurance (major medical) is available each semester. Students must complete an enrollment form and submit it with payment to the Business Office by the established deadline each semester. Additional coverage is available for spouse and children. Rates are established by insurance provider and vary based on coverage selected. Inquire at the Business Office in Lowell Heiny Hall.

**Personal Computer Recommendation**

Mesa State College recognizes the importance of computers as educational tools to be used in the pursuit of higher education. Students are strongly encouraged, to the extent possible, to have a personal computer for their use while attending Mesa State College.

Students who will be purchasing a personal computer should consider the following specifications. By doing so, students will be able to complete most course work in the privacy of their own room/home.

Suggested specifications: Computer that runs Microsoft Windows; with modem and CD-ROM drive; and good letter quality printer.

Software: Students may be required to purchase specific software for specific courses. In some cases, students will purchase software along with the textbook used for the class at a nominal cost. Students should not purchase software until advised by individual faculty.

Students majoring in Mass Communication (Broadcasting, News/Editorial, Print Media, Public Relations/Advertising) or Graphic Arts mainly use Apple Macintosh. Majors are encouraged to consult with the appropriate department before purchasing a computer.

**Refunds of Tuition and Fees**

The refund policy is being reviewed and updated in relation to the recent implementation of the College Opportunity Fund. The updated policy will be posted on the college's website.

**Student Financial Planning**

If students need assistance with payment arrangements, financial planning and financial management, please contact the Student Financial Counselor, at (970) 248-1873, Lowell Heiny Hall, Room 112

**Student Housing and Meal Plans**

Freshman and sophomore students who are under 21 years of age and not residing with their parents in Mesa County are required to live on campus. However, space is limited and priority is based on the date the complete housing application and deposit are received in the Housing Office. A student may qualify for exemption from the on-campus requirement for definite reasons expressed in writing and approved by the Department of Housing and Residence Life if he or she is:

1. Married; or
2. 21 years of age or older; or
3. A part-time student (enrolled for less than 12 hours per semester); or
4. Residing at the permanent address of his/her parents or step-parents; or

5. Of junior class standing as of the beginning of the semester; or
6. Not of junior standing, but has resided in the Mesa State College residence halls for four semesters; or
7. Medically excused (with written documentation from a medical doctor); or
8. Placed on a waiting list due to limited space on campus.

On-campus living offers many advantages. Its location makes class attendance and activity participation very convenient for Mesa State students. In addition, living on campus relieves the students of many time-consuming responsibilities that enable them to devote more energy to their studies, recreational activities, and making new friends.

Each residence hall and apartment complex is staffed with a resident director, assistant director, and resident assistants who are trained to help students. These staff members aid residents in adjusting to college life, explaining policies, answering questions, and anything else associated with college life. The Housing Office is available to help students make arrangements for residency and meal plans, answer questions, receive suggestions, and assist students with any housing-related concerns or interests.

**Housing Facilities**

There are three types of on-campus housing available: (1) three traditional residence halls which require a meal plan (most rooms are designed for double occupancy, although there are a limited number of single rooms); (2) suite style residence hall which also requires a meal plan, and; (3) apartments, available for sophomores, juniors, and seniors.

**Student Housing and Dining Contract**

Students who wish to apply for accommodations on campus are required to submit a \$150 deposit with their signed contracts and completed application cards. On-campus housing is not guaranteed, as availability is limited to 929 students. The deposit includes a \$25 non-refundable application fee. Housing assignments will be made by mid-June.

The Student Housing and Dining Contract is a legal agreement between the student and Mesa State College regarding residency and meal plans on campus. The contract is in effect for the entire academic year. These services, however, are billed and payable by semester. The schedule for room and meal plan refunds also is outlined in the contract. Both parties assume the rights and responsibilities outlined in the Student Housing and Dining Contract and all supporting documents upon acceptance of the contract by Mesa State College.

Questions concerning housing on campus should be directed to the Housing Office at (970) 248-1536 or e-mail [housing@mesastate.edu](mailto:housing@mesastate.edu).



**Off-Campus Housing**

The college has no jurisdiction over off-campus housing but attempts to assist students in locating housing. The Housing Office posts weekly updates of “Almost Home” listings. “Almost Home” is a Grand Junction community service for listing rental properties and roommate exchange. The listings are posted at [www.catholicoutreach.org](http://www.catholicoutreach.org).

**Campus Dining**

Campus Dining Services offers food service to students at Mesa State College which includes a choice of two meal plans: Plan A, unlimited meals between 6:45 a.m. and 7:00 p.m., or Plan B, unlimited meals between 10:30 a.m. and 7:00 p.m. Multiple entrees are served with unlimited seconds. Only two meals are served on Saturday and Sunday (brunch and dinner). Both meal plans have full access to brunch and dinner 10:30 a.m. to 1:30 p.m. and 5:00 p.m. to 7:00 p.m. Meals are planned with special needs in mind also, such as for the weight-conscious or vegetarian.

Students living in the residence halls may select the meal plan of their choice but are required to choose one. Students not living in the residence halls may, if they wish, purchase meal plans and/or Mav money. Meals are served seven days a week during the academic year. Commuter students are welcome to purchase any of the resident student meal plans, or try one of our commuter plans. Call (970) 248-1742 for more information on dining services.

**Room and Board Charges**

**Residence Halls:**

Pinon, Rait ,Tolman and Monument Halls:

|  | <b>Per Semester</b> |
|--|---------------------|
| Double room (per student)                | \$1,682.00*         |
| Single room (per student)                | \$2,291.00*         |
| Monument Hall (double suite per student) | \$1,769.00*         |
| Triple Suite                             | \$1,553.23*         |

**Apartments:**

Walnut Ridge:

|                           | <b>Per Semester</b> |
|---------------------------|---------------------|
| Double room (per student) | \$1,856.00*         |
| Single room (per student) | \$2,436.00*         |

\* A \$20 per semester charge will be added to all residents' accounts for a non-refundable housing activity fee.

**Meal Plans:**

(Available to all students; mandatory for those living in a residence hall) Each meal plan includes \$125.00 in Maverick Money.

|  | <b>Per Semester</b> |
|--|---------------------|
| Plan A - unlimited, 6:45 a.m. - 7:00 p.m.  | \$1,669.32          |
| Plan B - unlimited, 10:30 a.m. - 7:00 p.m. | \$1,567.24          |



## STUDENT SERVICES, OFFICES, AND ACTIVITIES

### Office of the Dean of Students

**Lowell Heiny Hall, Room 107, (970) 248-1366**

Mesa State College has an environment that encourages and allows students to develop socially as well as educationally. Student services staff provide opportunities for students to increase competencies in academic and vocational areas as well as improve self-understanding, interpersonal relations, decision-making, value clarification, and establishment of life goals.

### Office of Admissions

**1100 North Avenue, (800) 982-MESA or (970) 248-1875**

The Admissions Office serves as the initial point of contact for prospective students and their families. Among the staff's responsibility is the recruitment of students and the processing of admissions applications and petitions for changes to residency classification for tuition purposes. Activities of the college's Student Ambassadors also is coordinated through this office.

### Office of Financial Aid

**Lowell Heiny Hall, Room 117, (970) 248-1396**

The Financial Aid Office works with students to meet educational expenses through various monetary resources. Depending on a student's qualifications, aid is available in the form of scholarships and grants that do not need to be repaid. Additionally, students can apply for loans that are need or non-need-based as well as work-study employment.

### Office of the Registrar

**Lowell Heiny Hall, Room 121, (970) 248-1555**

The Registrar's Office provides a variety of services that includes registering students into classes, maintaining academic records, and certifying degree requirements for graduation. The office also is responsible for processing applications for readmission to Mesa State or transferring from another institution, as well as forms to add/drop a class, holds on registration, change of address, non-release of directory information protected by federal law, and enrollment verification for loan or insurance purposes. The office also prepares Mesa State transcripts and evaluates transcripts from other institutions to determine the number of credits that will apply toward a particular degree.

### Educational Access Services

**1020 Elm Avenue, (970) 248-1826 or -1801**

Support services for students with documented disabilities are available through Educational Access Services, a division of Academic Services. Several services are available, depending upon the documented disability. Services can include but are not limited to volunteer note takers, monitored testing, and taped textbooks (eight weeks notice required). Prospective students are encouraged to contact the office of

the Coordinator of Educational Access Services to discuss special needs. Students must initiate a request for accommodations by contacting the EAS office prior to the start of classes. A new request must be made each semester.

### Peer Tutoring Program

**Houston Hall, Room 110, (970) 248-1913**

The Peer Tutoring Program provides tutoring in a group setting for students who need extra help in a course that is difficult for them. Qualified tutors, recommended by faculty, are trained to work with groups of students in a particular course or general subject area. Tutors sometimes oversee open study sessions (e.g., math, chemistry) where students can attend as often as they wish. These sessions are available at various times and locations throughout the semester.

Math Lab is an open study area operated by special peer tutors who have backgrounds in various levels of mathematics. This is a walk-in location that is open to all MSC students; appointments are not necessary. The Math Lab is generally open all day and during selected hours in the evening each semester. The Math Lab is located at 1325 College Place.

### Writing Center

**Houston Hall, Room 118, (970) 248-1831**

Students can improve their writing skills through one-on-one assistance from the staff of the Writing Center. Assistance also is available electronically. For further information, contact the center.

### Testing Center

**UTEC Campus, 2508 Blichmann Avenue, (970) 255-2750**

The Testing Center services include, but are not limited to, examinations required for admission to graduate and professional schools, examinations for proficiency and certification in nursing and teaching, and the credit by examination program. Assessment of academic skills in college level English and mathematics are provided through the center for potential students, as well as those who already have been admitted.

### Advising and Career Center

**Lowell Heiny Hall, Room 127, (970) 248-1177**

The Advising and Career Center is here to assist students and alumni in attaining their educational and career goals. In addition, the Center assists employers in implementing their recruitment strategies and Mesa State faculty and staff with needs that may arise for them, as well as providing information for parents. The following services are free of charge to students and alumni.

- Academic Advising
  - New incoming freshman students

- Non-degree seeking students
- Undeclared returning students

- Career Counseling
- Career Assessments
- Career Fairs
- Cover Letter Assistance
- Credential Files
- Employment Preparedness Workshops
- Internship Information
- Major and Minor Selection
- Mock Interviews
- On and Off Campus Job Listings
- Referrals for Personal Counseling
- Résumé Development

\*Note that some restrictions may apply.

Information about the career fairs will be posted to the Advising and Career Center Web Site at [www.mesastate.edu/sl/acc](http://www.mesastate.edu/sl/acc). The Advising and Career Center actively invites selected companies to visit Mesa State to conduct on-campus recruiting. Information regarding companies scheduled to recruit on campus will be advertised with posters, flyers, and class announcements.

### Student Financial Planning

**Lowell Heiny Hall, Room 112, (970) 248-1873**

If students need assistance with payment arrangements, financial planning and financial management, contact the Student Financial Counselor.

### Student Health Center

**1060 Orchard Avenue, Suite O, (970) 256-6345**

Good health, both physical and emotional, is an important factor in successful college work. It is the goal of the Mesa State College Student Health Center to provide competent, accessible medical care. Similar to the family physician, the Student Health Center provides a source of basic medical assistance for the student who is away from home.

Outpatient health services are provided for registered fee-paying students who have a valid student I.D. card regardless of the number of credit hours carried or insurance status. Students are required to pay a \$5.00 co-pay for all services received at the Student Health Center. The primary services provided are: first aid, dispensing of simple medications, assessment and referral to specialty physicians and dentists, providing counsel for personal health problems, simple physicals, and limited lab tests for a nominal fee.

Services include a full-time registered nurse, with a part-time physician and practitioner providing a complement of health care, Monday-Friday. The physician/ practitioner provides students with an initial health assessment and evaluation, treats minor illnesses, and refers students for hospitalization or specialized treatment as needed. A registered nurse is

available to answer questions and provide medical information.

The Student Health Center is a contracted service with an off-campus provider. It is located within easy walking distance of the college at 1060 Orchard Avenue, Suite O.

For emergency illnesses or accidents that occur after the center's hours, or on weekends, students should report to the Emergency Care Center at Community Hospital. Immediate emergency help should be obtained by dialing 911.

### Behavioral Clinical Services (BCS)

**2004 N. 12th Street, Suite 47, (970) 241-6500**

#### Counseling Services

Counseling services are contracted by Behavioral Clinical Services (BCS). All students paying student fees are eligible for six free counseling sessions per academic year. Referrals can be made through any office on campus and/or students may contact BCS directly for an appointment. All sessions are confidential. Students dealing with personal problems affecting their academic life are encouraged to talk with a professional counselor.

#### Alcohol/Drug Education (AWARE Program)

Counseling services, in partnership with Behavioral Clinical Services, provides alcohol and drug education presentations for staff, faculty and students. The AWARE program staff is available to make presentations to student groups, classes, and faculty or departments, on topics related to substance abuse.

### Emergency Contact Services

**Lowell Heiny Hall, Room 109, (970) 248-1366**

The Office of the Dean of Students, located in LHH 109, is the referral point for emergencies encountered by students. Issues such as messaging for emergencies while a student is in class are determined on a case-by-case basis. It is important to note that the office cannot guarantee a contact with any student due to their highly mobile behavior, but a good faith effort will be made. This service is not for non-emergency situations. The telephone number is (970) 248-1366

### Office of Transfer Services

**ECEC Building (corner of 12th & Elm), (970) 248-1232**

The Office of Transfer Services offers assistance to students transferring into Mesa State from other institutions. Services include preliminary transcript evaluation, educational planning, transition to academic departments, and resolution of transfer problems. The Transfer Services staff is available by appointment and for walk-ins. The office works closely with the Office of the Registrar to provide students information about their transfer credits and how those credits may be applied.

## Tomlinson Library

(970) 248-1862

The John U. Tomlinson Library supports the educational mission of the College by providing a diverse collection of materials for use by the students and faculty.

The library collection contains over 300,000 items, which includes books, periodicals, nonprint materials, maps, newspapers, audio and visual media, software and other items. More than 50 on-line databases are available through the Library's web pages. The library is a selected depository for federal government documents and also contains special collections in the areas of western Colorado history and other subjects.

Services provided by the library include reference and information desk assistance, group study rooms, photocopy and microform machines, and library instruction to classes. The Media Center provides instruction materials consultation, equipment distribution, and media production services to students and faculty.

Access to the collection is through the on-line catalog, which is composed of the holdings of the Tomlinson Library, and includes holdings in other libraries throughout Colorado and the United States. Should materials not be available locally, the Interlibrary Loan Department and Prospector Program obtains needed materials for students and faculty from other libraries. Library and informational resources are available via the web at [www.mesastate.edu/library](http://www.mesastate.edu/library).

## Little Mavericks Learning Center

1340 College Place, (970) 248-1318

Childcare is available for children of Mesa State College students. The age limit is 1 year and walking up to 5 years. For further information, contact the Center Director.

## Student Activities

College Center, (970) 248-1758

Many student clubs and organizations exist at Mesa State College. Student clubs include professional and academic clubs as well as social clubs. Currently Mesa State College has over 50 active clubs on campus including club sports, religious clubs, and support groups, which allow students to meet other students who share similar interests. A list of current active clubs and organizations can be viewed on the Mesa State College web site, are listed in the Student Handbook, or available at the College Center Information Desk.

There are also a number of student fee-funded organizations that are administered by Mesa State students including the following:

- Associated Student Government (ASG): ASG is the representative body and official voice of the students.

The ASG operates through the General Assembly, a legislative body composed of students elected by the student body. Students involved in ASG have an opportunity to gain leadership skills by representing student opinions to the Mesa State administration and the College's Board of Trustees, and they are responsible for reviewing and administering student fee requests.

- Mesa State Activities Council (MSAC): MSAC is responsible for organizing entertainment activities including concerts, films, speakers, and dances. Events have included musicians, comedians, hypnotists, and speakers.
- Fine Arts Organizations: All Mesa State students are encouraged to audition to join a musical group, participate in theatre or be part of a dance performance. Performances in the arts are highly regarded at Mesa State and are well attended by students and the community.
- Media Organizations: These organizations include the student newspaper The Criterion, the student radio station KMSA 91.3 FM, and the literary and art publication Literary Review. Each of these groups is professionally advised by faculty members and utilizes the latest equipment employed in their fields.
- Outdoor Program: This student group organizes trips and classes including whitewater rafting, rock climbing, and skiing. The rental center, located in the College Center, rents mountain bikes, canoes, kayaks, cross-country skis, backpacks and other gear.
- Cultural Diversity Board (CDB): This student organization offers leadership experiences for students and organizes programs to educate students regarding multicultural concerns and issues. Member groups include the Black Student Alliances (BSA), the Native American Council, the International Student Union, M.E.Ch.A., Ho'Olokahi, and PRIDE.

## Intercollegiate Athletics

Saunders Physical Education Center, (970) 248-1503

Intercollegiate athletics provides students with equitable opportunities to enhance their education, represent the college, and participate in athletics while developing skills and understanding. All undergraduate students are encouraged to participate in intercollegiate athletics as determined by their interests and capabilities.

Participation in the program, however, is secondary to the academic expectations of students. To this end, it is the responsibility of those administering the program to schedule the length of playing seasons, the frequency of practice sessions, and the number of contests so that they shall not

unreasonably conflict with students obligations to attend class regularly, to study, to develop their intellectual, moral, and social faculties, and to graduate from the college as educated men and women. The men's program at Mesa State includes baseball, basketball, football, and tennis, while basketball, cross-country, golf, soccer, softball, tennis, and volleyball are available to women.

### Campus Recreation Services

#### Saunders Physical Education Center, (970) 248-1337

Campus Recreation Services is established to provide varied programs and services that will contribute to the health and well being of the students of Mesa State College. The program educates participants in the responsible use of leisure time by providing an atmosphere that fosters the development of lifelong patterns of recreational activities and opportunities for participation in such activities regardless of age, sex, race, or motor ability. To do so, facilities and resources are designed to provide appropriate environments for participants through the following:

- Offering structured competitive and social opportunities in a variety of individual and team sports (Intramural Sports Program and Club Sports). Intramural sports include flag football, softball, volleyball, basketball, indoor and outdoor soccer, ultimate Frisbee, disc golf, badminton, tennis, racquetball, and swimming. Club sports include cycling, rodeo, rugby, and track.
- Providing access to recreation facilities, equipment, and activities for convenient, informal participation (Open Recreation Program). These facilities include a multi-

sport gymnasium, cardio machines, weight training circuit machines, a free weight room, indoor track, racquetball courts, climbing wall, and swimming pool.

- Offering structured and non-structured opportunities for improving and maintaining physical fitness (Fitness/Wellness Program). These opportunities include aerobics classes, a fitness club, fitness assessments, and exercise program prescription.
- Offering students significant opportunities for career development, including the acquisition of leadership, management, and technical skills in all areas of Campus Recreation Services (Student Employment Program).

### MAVCard Student I. D.

#### College Center, Room 102, (970) 248-1059

The Mesa State MAVCard is your key to campus services at Mesa State College. The MAVcard can be used at Tomlinson Library, the student recreation center, the dining hall, Bookcliff Café, campus student photocopy machines, vending machines, and for access to residence halls and athletic events. The MAVcard can also be linked to a free Wells Fargo® checking account, with a customer service branch right on campus.

### Campus Parking

#### 1041 Mesa Avenue, (970) 248-1919

Students and College staff members who wish to park on campus may purchase parking permits for designated areas. A parking permit does not guarantee a parking space, but permits on-campus parking when such space is available.



# REGISTRATION POLICIES AND PROCEDURES

## Contact Information

Office of the Registrar, Lowell Heiny Hall Room 121, Mesa State College, 1100 North Avenue, Grand Junction CO 81501-3122; call (970) 248-1555.

## Overview

Once admitted to Mesa State College, a student meets with an academic advisor (see Academic Advising section). Not all courses available in this catalog are offered every semester or every year. Course schedule offerings for each semester (including Maverick On-Line registration instructions) are available through the Mesa State College web page at [www.mesastate.edu](http://www.mesastate.edu) and in the Office of the Registrar. Students may register via Maverick On-Line or in person at the Office of the Registrar.

## Student Liability for Tuition and Fees

For all students, the act of registration automatically confirms attendance and the student will incur a financial obligation to the College. A registered student is responsible for paying his/her tuition and fees, regardless of whether or not they attend classes, unless the student officially withdraws from the College through the Registrar's Office or drops all courses via the web prior to the deadlines published in the semester course schedule. It is the student's responsibility to make a copy of the schedule reflecting any courses dropped via the web.

## Attendance

Students are expected to attend all sessions of each course in which they are enrolled. Failure to do so may result in a lowered grade or exclusion from class at the discretion of the instructor. At any time during a semester, a student who fails to attend regularly may be dropped from class rolls. An instructor may initiate a drop or withdrawal for a student who fails to attend classes regularly. ("Drops" are up to 15% of class elapsed; "withdrawals" are up to the mid-point of the class.)

Attendance during the first two class periods is required. Any instructor has the option of dropping any student who fails to attend the first two class meetings so that other students may enroll. Not all instructors will exercise this option; therefore, a student should not assume that non-attendance will result in automatic drop from a class.

It is the responsibility of the student to arrange in advance with instructors for making up missed classwork, assignments or tests incurred because of a student's participation in required field trips, intercollegiate sports, or other trips. The coach, instructor, or other official whose activities require students to be absent from classes should give each participating student an "official" roster and

schedule of events for the semester or other appropriate time span which may result in classes being missed. The student is responsible for contacting the instructor of each of his/her classes affected at least 24 hours in advance of each class that will be missed.

Absences due to serious illness or strictly unavoidable circumstances may be excused if the instructor in charge of the course is satisfied as to the cause. In the case of an emergency, the student may contact the Office of the Dean of Students, and that office will contact the student's instructors to inform them of the emergency.

Being excused for an absence in no way relieves the student of responsibility for completing all work associated with the course to the satisfaction of the instructor in charge. Being late to a class or leaving a class early is disruptive and is not acceptable except in extreme circumstances or with prior approval of the instructor. Prior approval is also required of the instructor if a student wishes to bring a guest (or a child) to class.

Students receiving financial aid that cease attending all classes without formally withdrawing may need to repay a portion of their financial aid.

## Add/Drops—Schedule Adjustments

Students may make adjustments to their schedules according to specified deadlines and procedures as announced in each semester's published course schedule. Students dropping all of their courses should refer to the Withdrawal section of this catalog.

## Withdrawal Procedures

### Withdrawal from Individual Classes

Students may withdraw from individual classes (full semester duration, modular, and summer) via the web at [www.mesastate.edu](http://www.mesastate.edu) prior to the start of the session (semester or modular). Once the session has begun, a withdrawal is permitted up to the mid-point of those classes. (See Refund Policy in the Tuition and Fees section of this catalog.) After the session has begun, a Change of Schedule form, properly completed and with the instructor's signature, is required and must be submitted to the Office of the Registrar by the deadlines published in the semester Course Schedule. Forms are available in the Office of the Registrar. Students who officially withdraw from a course prior to the date of mid-semester (see semester Course Schedule for specific date) will receive a "W". Students who withdraw after the deadline will automatically receive a grade of "F" except for cases with extenuating, non-academic reasons.

In addition to regular withdrawal from class(es) by the student, an instructor may initiate a withdrawal from his or her class for failure to attend class, failure to turn in assignments over an extended period of time, or for disciplinary reasons. In such cases, the instructor must observe regular withdrawal deadlines.

### **Total Withdrawal from the College**

Students who desire to withdraw totally from Mesa State College are advised to notify their faculty advisor or the Advising and Career Center prior to obtaining the appropriate paperwork from the Registrar's Office.

Prior to the first day of the semester, students may totally withdraw from Mesa State by dropping all classes via the web at [www.mesastate.edu](http://www.mesastate.edu). If a student desires to totally withdraw after the semester has begun, he/she must report to the Office of the Registrar. See Refund Policy in the Tuition and Fee section of this catalog. The necessary withdrawal papers must be filled out by the student and officially signed by the appropriate staff. Grades of "W" will be given if done so before the deadline and if all withdrawal procedures have been satisfied for courses in which the student has not already received a grade (including F). Students totally withdrawing after the deadline will receive grades of "F". Exceptions to the withdrawal deadline are possible and are considered only by written appeal in the case of true, documented emergencies. The Appeals Committee will review completed, documented requests. Appeal forms are available in the Office of the Registrar.

## **Family Educational Rights and Privacy Act (FERPA)**

### **General Policy**

The Family Educational Rights and Privacy Act (FERPA) provides students who are enrolled in an institution of postsecondary education the right to inspect, review, and challenge their educational records. Mesa State College has the responsibility of maintaining and protecting the confidentiality of students' official educational records. Mesa State College also supervises the access to and/or release of educational records of its students. FERPA covers enrolled and former students, including deceased students. Students who are not accepted to Mesa State College, or if accepted, do not attend, have no rights under FERPA. In addition, the College will not release personally identifiable records of students to any individual, agency or organization without the prior written consent of the student, except as provided by FERPA.

### **Directory Information**

Mesa State College may, without the consent of the student, release to persons outside the institution information designated as Directory Information in accordance with the provisions of FERPA. Directory Information shall include information in an educational record which would not

generally be considered harmful or an invasion of privacy if released, including but not limited to:

1. student name, address, telephone number
2. date and place of birth
3. major fields of study
4. participation in officially recognized activities and sports
5. weight and height of athletic team members
6. photograph
7. dates of attendance to include enrollment status (i.e., full time or part time)
8. degrees and awards received
9. most recent educational institution attended
10. e-mail address

Note: At any time, a student may request to the Registrar's Office that Directory Information not be released to other parties without written permission. This request will be honored until the student requests in writing that Directory Information be disclosed.

### **Access to Student Educational Records**

FERPA provides current, former students, and parents of students who claim the student as a dependent (according to Internal Revenue Code of 1954, Section 152) for income tax purposes on their most current federal tax return the right to inspect, review, and challenge their educational records.

Students are permitted to inspect and review their educational records within a maximum of 45 days after the request is received. Students may not review financial information received from their parents or guardians, confidential letters and recommendations placed in their files prior to January 1, 1975, academic records containing information regarding other students, administrative, disciplinary, law enforcement, student health records, and/or records which are maintained in the sole possession of the maker.

While students who have a financial hold or past due account (all holds included) have a right to inspect their academic records, no transcript will be released to the student or other party until holds are reconciled. Bankruptcy, however, removes any financial obligations the student has to Mesa State College. Please contact the Office of the Registrar with questions regarding this policy.

### **No-Credit-Desired/Audit Courses**

A student who desires to attend certain undergraduate classes regularly, but does not wish to receive grades or credit, should register for "no credit desired" in these classes.

Tuition charges for classes taken under the "no-credit desired" category are the same as for classes taken for credit. Exceptions to this policy will be made for senior citizens.

The deadline for a student to change from “no-credit desired/audit,” to credit is the same as the deadline to add a class. The last day for a student to change from credit to “no-credit desired/audit” is the same as the deadline to drop a class.

### **Senior Passport to Education Program**

Mesa State College provides individualized support, including academic and scheduling decisions, for persons 60 years and older. For more information, contact the Registrar’s Office.

### **Classes for Credit**

Persons 60 years or older who wish to enroll for credit must submit required admission and registration materials to the Admissions Office. The same deadlines, costs, etc., as for other students will apply.

### **Classes for No Credit**

Persons 60 years of age or older who do not wish to earn college credit may attend undergraduate resident instruction classes, on a space-available, instructor-approved basis, at Mesa State College without paying tuition or fees. This policy does not apply to laboratory, self-supporting, and certain other courses for which special charges normally are assessed.

Interested persons should obtain a registration form from the Office of the Registrar. The registration form must be signed by the instructor granting approval and returned to the Office of the Registrar. No Mesa State College records of participation will be maintained.

### **Immunization Policy for Measles, Mumps, and Rubella**

Colorado State Immunization Law states that after July 1, 1995 all college students (now including those students over twenty) born since January 1, 1957 must have two (2) measles, two (2) mumps, and two (2) rubella doses. If the student received a second measles dose prior to July 1, 1992, the second mumps and rubella are not required.

Written evidence of titers (blood tests) showing immunity to measles, mumps, and rubella is acceptable. If the student completes an exemption form and an outbreak occurs, the student will be subject to exclusion from school.

Students must prove compliance within 60 days from the beginning of classes during the first term they attend or they will not be allowed to register for the next term.

### **Selective Service**

Any male student born on or after January 1, 1960 wishing to attend classes at Mesa State College must attest to his registration or exemption from registration with the Selective Service. This testimony must be done prior to initial registration.

### **Veterans**

Programs offered by Mesa State College, with certain exceptions, are approved by the Community College and Occupational Education System for the education and training of those veterans and dependents of veterans eligible under applicable public laws. A veteran or dependent planning a course of training in a special program not described in the College catalog or identified as approved for veteran’s benefits should check with the veterans certification officer before enrolling in such a program, if benefit assistance is desired.

Veterans and dependents who plan to apply for VA benefits while attending Mesa State College should contact the Office of the Registrar as soon as the decision to enroll is made. Application for benefit assistance must be made at least two months prior to initial registration if the advance benefit check is to be received on the first day of class. Without this advance application, the student must make other financial arrangements and be prepared to finance tuition and fees, books, supplies, and living expenses for at least two months. Six weeks is the minimal processing time required for the Veterans Administration to establish an applicant’s file. Further information may be obtained from the Coordinator of Veterans Affairs in the Office of the Registrar.

Credit may be granted for experience and training gained during active duty in the armed forces. Students must submit appropriate discharge papers, transcripts, and certificates of completion to the Office of the Registrar. All credit granted will be lower division credit.

### **National Student Exchange**

Mesa State College is a member of the National Student Exchange Program. NSE is a consortium of over 175 colleges and universities in the United States and its territories. Mesa State students may be able to participate in this program at in-state tuition rates and receive full credit for course work completed while on exchange. For further information, contact the Admissions Office.



## GENERAL ACADEMIC POLICIES—UNDERGRADUATE

### Grading System

Grades at Mesa State College are as follows:

- A = Excellent to superior;
- B = Good to excellent;
- C = Satisfactory;
- D = Passing but not satisfactory;
- F = Fail;
- I = Incomplete;
- IP = In progress;
- W = Withdraw;
- NC = No credit;
- P = Pass.

Incomplete (“I”) grades are temporary grades given to a student only in an emergency case and at the discretion of the instructor. In Progress (“IP”) grades are temporary grades given to a student in the case of a course which, because of its nature, may not be completed by the end of the semester of enrollment (some internships and cooperative education classes are examples).

At the end of the semester following the one in which an “I” is given, the “I” becomes the grade that is submitted by the instructor to the Office of the Registrar. If the instructor does not submit a grade by the deadline for that semester, the grade becomes an “F”. An “I” grade given spring semester becomes a permanent grade at the end of the following fall term.

At the end of two semesters following the one in which the “IP” grade is given, the grade that is submitted by the instructor to the Office of the Registrar replaces the “IP”. If the instructor does not submit a grade by the deadline for that semester, the grade becomes an “F”. An “IP” grade given spring semester becomes a permanent grade at the end of the following spring semester.

Extension of the time to complete work may be made in exceptional circumstances at the discretion of the instructor. A student with an “I” or “IP” grade, however, may not change the “I” or “IP” by enrolling in the same course another semester.

### Academic Standards

The scholastic standing of a student at Mesa State College is computed on the basis of all courses attempted (unless Academic Renewal has been approved – see next page) at Mesa State College. Grades awarded from any other institution will not be utilized in the grade point average (GPA) calculation.

Mesa State College uses the four point system in computing the grade point average of its students. Under this system, a

student receives four quality points for each semester hour of A; three points for each semester hour of B; two points for each semester hour of C; one point for each semester hour of D; and no quality points for an F. An example follows:

|   |
|---|
| 3 Semester Hours of . . . . .A = . . . . .12 points |
| 3 Semester Hours of . . . . .B = . . . . .9 points  |
| 3 Semester Hours of . . . . .C = . . . . .6 points  |
| 3 Semester Hours of . . . . .D = . . . . .3 points  |
| 3 Semester Hours of . . . . .F = . . . . .0 points  |
| 15 Semester Hours . . . . .30 points                |

Thirty (30) points divided by 15 semester hours = 2.00 GPA

### GPA Minimum

Students are considered to be making “satisfactory progress” toward a degree if they attain a cumulative GPA consistent with the table listed below. Incomplete (“I”) and In Progress (“IP”) grades are tentative grades and until changed are not considered in computing either the cumulative grade point average or the grade point average for the particular semester concerned. “W” hours do not count as hours attempted or in the GPA. (See section on *Withdrawal Procedures*)

| Credit Hours | Cumulative GPA |
|--------------|----------------|
| 0 – 15       | 1.70           |
| 16 – 30      | 1.80           |
| 31 – 45      | 1.90           |
| 46 and above | 2.00           |

Students failing to achieve the minimum GPAs listed above will be placed on academic probation. The student will remain on probation until the minimum GPA is achieved, providing the student earns a minimum semester GPA of 2.00. If a student already on academic probation fails to earn a semester GPA of 2.00, the student will be placed on academic suspension. The student will be prohibited from further attendance at Mesa State College for a minimum of one semester.. (See *Academic Probation and Suspension* section.)

A student must achieve a cumulative grade point average of 2.00 or higher to graduate at the certificate, associate, or baccalaureate level. Some programs have additional GPA requirements to remain in and graduate from that program. See *Programs of Study* section and subject program sheet for specifics.

### Academic Probation and Suspension

“**Good Standing**” signifies that the student is making satisfactory academic progress (see Academic Standards section) and is eligible to continue studies at Mesa State College.

**“Academic Probation”** indicates a student is not in good standing and constitutes a warning to the student that the student’s scholastic achievement needs improvement or suspension will result. Students will be placed on academic probation if their cumulative grade point averages at Mesa State fall below the minimums listed under GPA minimum.

Upon being placed on academic probation, students are permitted to continue studies for one semester, during which time they are expected to improve their cumulative grade point averages to the minimum required levels. Those who succeed will be removed from academic probation.

Students on academic probation will remain on academic probation until they raise their cumulative grade point averages to the required level. Once on probation, a student must maintain a minimum semester grade point average of 2.00 to avoid being placed on academic suspension.

**“Academic Suspension”** indicates the student is not in good standing and represents a temporary, involuntary separation of the student from the College for a minimum of one semester for failure to meet minimum academic standards.

Following an academic suspension, a student must apply for readmission to Mesa State College. For degree programs that do not have separate admission policies, the readmission to Mesa State College is also readmission to the degree program as long as the degree still exists. For degree programs having admission policies over and above admission to Mesa State College, the student must also reapply to the degree program.

A student may be suspended from and readmitted to Mesa State College a maximum of two times. Academic suspension, when imposed, becomes effective immediately upon the recording of grades at the end of the semester or summer term.

The first suspension shall be for a period of one semester; i.e., a student suspended at the end of fall semester may not attend the following spring semester; a student suspended at the end of spring semester may not attend the following fall semester. A student suspended at the end of summer term may not attend the following fall semester.

The second suspension shall be for a period of two semesters (i.e., a student suspended at the end of fall semester may not attend the next spring or fall semester; a student suspended at the end of spring semester may not attend the following fall or spring semester). A student suspended at the end of summer term may not attend the following fall or spring semester.

Students may not enroll in any credit classes whatsoever (including summer term) during the period of suspension.

## Grade Improvement

Any course which is taken more than once for academic credit at Mesa State College is done so only for “grade improvement” wherein academic credit is awarded only once and the last grade received is the one used to compute the student’s cumulative grade point average and to fulfill requirements for the degree. The only exceptions to this policy are DANP (performing dance), MUSL (music lessons) and MUSP (performing music) classes, each of which may be taken twice for academic credit; Independent Studies (a maximum of six credit hours may be taken for credit – see the Independent Study section in this catalog); and in some cases Topics, Practicums, Seminars, Internships, Structured Research, and Cooperative Education. See program sheets and the appropriate department head or director for these exceptions.

The option of repeating a course for grade improvement is available to a student only if the course he or she wishes to repeat is still offered at Mesa State and is scheduled to be offered in the semester in which the student wishes to take it. The last grade earned will be the grade used, whether better or worse than the earlier grade(s).

Courses taken at Mesa State College may not be repeated at another college for improvement of the original grade and courses taken at another college may not be repeated at Mesa State College for improvement of the original grade.

## Academic Renewal

A student who re-enrolls at Mesa State College following an absence of at least five years may be eligible for “academic renewal.” If “academic renewal” is approved, none of the course credits and grades earned at Mesa State College prior to the five-year minimum absence will be used for meeting graduation requirements or in determining the student’s grade point average.

Among the requirements to be eligible to apply/petition for “academic renewal” is that the student must have completed 24 academic course credits at Mesa State College, excluding human performance and wellness activity courses and remedial courses below the 100 level, with a minimum grade point average of 3.00. The student must apply/petition in the Registrar’s Office no later than the semester following the completion of these 24 credit hours. Matriculation and/or course completion at other institutions during the five-year period of absence has no bearing on the application/petition.

## Non-Traditional Credit

Non-traditional credit can be earned from sources such as the following:

### 1. Advanced Placement/Credit Program

Students wishing academic credit or advanced placement for college level work done while in high school should take the appropriate College Board Advanced Placement

examination. These examinations are administered several times each year at numerous locations throughout the United States. College Board Advanced Placement examination scores currently accepted at Mesa State are Studio Art – General; Studio Art – Drawing; Art History; Biology; Chemistry; Computer Science A; Computer Science AB; Macroeconomics; Microeconomics; English Literature and Composition; English Language and Composition; French Language; French Literature; German Language; German Literature; Latin – Virgil; Latin Literature; Spanish Language; Spanish Literature; Government and Politics – United States; Government and Politics – Comparative; U.S. History; European History; World History; Human Geography; Mathematics – Calculus AB; Mathematics – Calculus BC; Music Theory; Physics B; Physics C – Mechanics; Physics C – Elec. and Mag.; Psychology; Statistics.

The Registrar's Office will supply information concerning the scores required for earning academic credit or advanced placement in the various subject areas.

## 2. College Credit by Examination and Department Challenge Examinations

Students attending Mesa State College may earn college credit by examination in certain subject areas on the College Level Examination Program (CLEP) and DANTES Examination Program. Credit may also be earned by subject matter tests offered through various departments at Mesa State College (Department Challenge examinations). Students must have completed 12 semester credit hours of course work at Mesa State College before challenge credits will be recorded on a transcript.

Registered Nurse (RN) students seeking credit for prior nursing learning experiences should see the Bachelor of Science in Nursing in the Academic Programs section of this catalog.

For more information contact the appropriate department head or director of the college's Testing Center.

## 3. International Baccalaureate

Mesa State College recognizes the International Baccalaureate Diploma Program and awards credit to qualified high school students. For policy details contact the Registrar's Office or check the Mesa State web site.

The faculty and department head of each department determine if and under what conditions non-traditional credit is allowed. If allowed, the following limits apply:

1. Military credits – maximum of 20 lower division semester credit hours.
2. CLEP, DANTES and credit by examination/department challenge examinations – maximum of 20 credit hours for a baccalaureate degree or an Associate of Applied Science degree, a maximum of 12 semester credit hours for an Associate of Arts or an Associate of Science degree and a maximum of six semester credit hours for a certificate of occupational proficiency. Students may not earn CLEP or DANTES credit in a class in which they have been previously enrolled including a class from which the student withdrew, so that the transcript shows a – “W,” “WP,” or “WF.” Students must receive approval and follow the procedure to challenge a course, including enrolling in that course. See the Registrar's Office for a copy of the procedure.
3. Advanced Placement – maximum of 30 semester credit hours for a baccalaureate degree, 15 semester credit hours for an associate degree or a maximum of six semester credit hours for a certificate of occupational proficiency.
4. International Baccalaureate – The subject exams and scores shown on each student's transcript will determine the number of credit hours allowed. Maximum credit allowed will be 30 credit hours toward a baccalaureate degree or 15 credit hours toward an associate degree.
5. Competency credit – maximum of 30 semester credit hours towards a baccalaureate degree or 25 percent of the total semester credits required for the program towards an associate degree or a certificate of occupational proficiency at the prerogative of the department head. Further restrictions apply. See the Registrar's Office for details and guidelines.
6. Cooperative Education, Internships, Practica, etc. – non-classroom oriented courses such as cooperative education, internships, practicums and other courses determined to be of this type are subject to the following limits: a maximum of 15 semester hours of credit may be used to satisfy the required academic semester credits for a baccalaureate degree. A maximum of 6 semester hours may be used to satisfy the academic semester hours for an A.S. or A.A. degree. A maximum of 12 semester hours may apply toward the 40 upper division hour requirement. No restriction on the maximum number of semester credits above and beyond any degree requirement is intended. These restrictions do not apply to the A.A.S. degree or certificate programs.

The total combination of any non-traditional credit cannot exceed:

1. 30 semester credits for a baccalaureate degree;
2. 15 semester credits for an Associate of Science or Associate of Arts degree;
3. 20 semester credits for an Associate of Applied Science degree;

4. Twenty-five percent of the semester credits required for a certificate of occupational proficiency.

### Learning Progress Evaluation

The evaluation of a student's learning progress in a course is considered to be a planned and continuous process and consists of a variety of activities including judgment, observation, testing, etc. Final examinations are a part of the evaluation process.

Article 13 of House Bill 1187, enacted in July of 1985 by the Colorado General Assembly, established that institutions of higher education in Colorado are to be held accountable for demonstrable improvements in student knowledge, capacities, and skills between entrance and graduation.

Students are required by Mesa State College to take part in testing and other programs deemed necessary for compliance with this legislation. Students who do not abide by these requirements may be denied registration and/or graduation privileges. Portions of the assessment process may require time outside the normal class periods.

### Honor Lists

The President's List is made up of those students who earn a GPA of 4.00 while enrolled in a minimum of 12 semester hours for a particular fall or spring semester.

The Dean's List includes students who achieve a grade point average of between 3.50 and 3.99 while enrolled in a minimum of 12 semester hours for a particular fall or spring semester.

The lists are based on semester grades, not cumulative grade point averages. Regardless of grade point average, a student who receives a failing grade ("F") in any course is not eligible for the Dean's List.

### Honor Societies

Membership in **Alpha Chi** is the highest academic honor which Mesa State College can bestow upon its scholars. To be eligible for election, students must have completed at least 75 semester hours toward the baccalaureate degree with a GPA of 3.75 or better and be fully recognized by their faculty and department heads as having the qualities of character pertaining to the true scholar. Alpha Chi is the second oldest and second largest of those national scholastic honoraries which elect members from all academic fields.

**Beta Beta Beta** is the National Honor Society in Biology at Mesa State College. For full membership in Beta Beta Beta, a biology major must have completed at least three classes in biology and have a minimum GPA of 3.00. With these qualifications, a student may be nominated for membership.

**Kappa Mu Epsilon** is an honor society for students of mathematics. Its chapters are located in colleges and universities of recognized standing which offer a strong mathematics major. The nominated and inducted members are selected from students of mathematics and other closely related fields who have maintained high standards of scholarship, have professional merit, and have attained academic distinction. The local chapter, Colorado Delta, is a working organization throughout the academic year. It functions as an integral part of the Computer Science, Mathematics, and Statistics Department of Mesa State College.

**Nu Kappa Chapter, Sigma Theta Tau International**, recognizes achievement in nursing. The purposes of the society are to recognize superior achievement and leadership qualities, foster high professional standards, encourage creative work and strengthen commitment to the ideals and purposes of the profession. Students must have a minimum GPA of 3.00 and rank in the upper 35 percent of their class to be eligible for membership. Nurses from the community may also be nominated for membership if they have demonstrated marked achievement in nursing education, practice, research or publication.

**Phi Alpha Theta** is the international honor society in history. The objective of this professional honor society is the promotion of the study of history through the encouragement of research, good teaching, publication, and the exchange of learning and thought among historians. To be eligible for membership, a student must have completed twelve or more hours of history with a minimum GPA in history of 3.10 and a minimum overall GPA of 3.00.

**Psi Chi**, the national honor society in psychology, is open for membership to students with either a major or minor in psychology. Minimum qualifications for membership are as follows: rank in the top 35% of one's class with a minimum 3.00 overall GPA; 3.25 Psychology GPA; completion of 9 semester hours in psychology; and completion of at least three semesters of college coursework. The purpose of Psi Chi is to promote and maintain excellence in scholarship in the field of psychology and to advance the science of psychology.

**Sigma Gamma Epsilon**, a national honor society for the earth sciences, has for its objectives the scholastic and scientific advancement of its members and the extension of friendship and assistance among colleges, universities, and scientific schools for the advancement of the Earth Sciences. Membership in Zeta Nu Chapter of Sigma Gamma Epsilon is open to continuing Earth Science majors with at least twelve credit hours of Earth Science coursework completed with a minimum GPA of 3.00. Qualified students are reviewed and may be nominated each semester.

**Sigma Pi Sigma** is the national honor society in physics. For membership in Sigma Pi Sigma, a physics major or other student who has completed at least three classes in physics must maintain an overall GPA of 3.00 and a 3.25 GPA in physics. A qualifying student may then be nominated for membership by the combined physics faculty.

**Sigma Tau Delta**, the national English honor society, endeavors to encourage, promote, and recognize scholarship and achievement in English language and literature. Membership is open to sophomore, junior, and senior English majors with a minimum GPA of 3.00 in English.

### **Student Load and Limitations**

The normal student load is 15 semester hours (some disciplines require a higher number). The minimum load required for a student to be recognized as a full-time student is 12 semester hours. If students register for fewer than 12 semester hours, they are classified as part-time students.

Students receiving scholarships and/or financial aid are generally expected to complete 12 hours of credit courses each semester. In order to receive full Veteran's Administration financial benefits, veterans must be enrolled in 12 or more semester hours each semester of attendance, for the entire semester.

It is recommended that students limit their academic load to 18 semester hours or less. Students should consult with their advisors before attempting an overload of more than 21 semester hours in a regular semester or more than nine semester hours in summer term. A surcharge, equal to the appropriate credit hour rate per semester, will be assessed for each credit hour over 18.

### **Classification Status**

A student is classified based on the number of semester hours successfully completed as follows:

|            |           |
|------------|-----------|
| 0 – 30     | Freshman  |
| 31 – 60    | Sophomore |
| 61 – 90    | Junior    |
| 91 – above | Senior    |

### **Student Conduct**

Mesa State College is a community consisting of students, faculty, support staff, and administrators. The College does not attempt to define all “student conduct”. It relies on students to assume the responsibility and obligation of conducting themselves in a manner compatible with the purpose of the College as an educational institution and the community as a place of residence. In addition to College rules and regulations, all students are subject to the same local, state, and federal laws as non-students and are beneficiaries of the same safeguards of rights as non-students.

The academic community has a long and cherished tradition of expecting its members to conduct themselves in accordance with the highest standards of personal behavior. The following are among those acts of misconduct which are not consistent with the educational goals of Mesa State College or with the traditions of the academic community:

1. Academic dishonesty, such as cheating, plagiarism, or knowingly furnishing false information to the College.
2. Forgery, alteration, misuse or mutilation of College documents, records, identification materials, or educational materials.
3. Obstruction or disruption of teaching, research, administrative, or public service functions of the College.
4. Intentional interference with an individual's rights to free speech, freedom to make academic inquiry, or freedom of conscience.
5. Aiding, abetting or inciting others to commit any act of misconduct set forth in 1 through 4 above.

Penalties for acts of misconduct including, but not limited to, those set forth above can range from official warning to expulsion from College, depending upon the seriousness of the misconduct. Detailed disciplinary procedures are available from the Office of the Dean of Students, located in Lowell Heiny Hall 109.

## UNDERGRADUATE GRADUATION REQUIREMENTS

Students are expected to assume responsibility for planning their academic programs in accordance with College and department policy. Each student is responsible for obtaining a program sheet, available from the appropriate academic department, at the beginning of his or her work detailing the exact requirements for the degree or certificate being pursued. Students are urged to consult with their advisors. The College assumes no responsibility for difficulties arising when a student fails to establish and maintain contact with his or her faculty advisor and department head. The student is ultimately and solely responsible for knowing the requirements for a particular degree and for fulfilling those requirements.

### Requirements for Degrees

Some requirements may vary with the program and academic department. Each student must abide by the rules set forth in the program sheet which may be obtained from the department offering the degree he or she is seeking. Candidates for all degrees must accomplish or be governed by, as appropriate, the following:

#### Graduation Checklist and Commencement Deadlines

Graduation documents are due the semester prior to completion of all coursework. The student should pick up an "Intent to Graduate" and "Graduation Planning Sheet" in the Registrar's Office. The student must then meet with his/her advisor and turn in to the advisor his/her completed program sheet.

It is the student's responsibility to become familiar with the procedure established for his/her particular program, and to adhere to the designated schedule. The "Intent to Graduate" must be turned in to the Registrar's Office on February 15 for fall graduates and September 15 for spring graduates. The deadline for summer graduates is February or September, depending on the ceremony the student wishes to participate in. To participate in the May ceremony, the "Intent to Graduate" is due September 15 of the fall semester prior to the ceremony.

#### Deficiencies

All academic and financial deficiencies must be removed (i.e., incomplete grades and/or unpaid financial obligations).

#### Final Credit Requirements Taken at Another College

Mesa State College generally accepts academic credits from regionally accredited colleges and universities. When a student intends to earn a Mesa State College degree but the final credits for completing that degree program are earned at another institution, the following restrictions apply:

1. Specific approval of the proposed institution and courses must be given by the appropriate academic department head and the Office of the Registrar at Mesa State

College during the time of the student's last enrollment at Mesa State College, and the student must receive a grade of "C" or higher in each course.

2. No more than 15 semester hours of final credit will be accepted in transfer.
3. Credit must be earned in no more than one calendar year immediately following final enrollment at Mesa State College.

#### Declaring a Major

The major the student lists on the Mesa State College application is considered for admission purposes. Once admitted, a student may change his/her major. In order to be admitted/declared into the major, the major must be accepting students and the student must meet the requirements to be admitted to the degree. Some majors have additional admission requirements and for those the student must visit the department for more information. Students who are admitted as an undeclared major are strongly encouraged to declare a major prior to registering for their second semester.

A student can change/declare their official major by working with the department of his/her desired major. Each academic department is available to aid students in changing their major and assigning a faculty advisor. Students should obtain the appropriate program sheet for their major at the time that the major is declared.

#### Catalog Under Which Student Graduates

Students must follow the Mesa State College graduation requirements from the same catalog as the program sheet for their declared major. In general, the graduation requirements for each student are stated in the Mesa State catalog that is in effect at the time the student first registers at the college. This is true provided (1) a student remains "continuously enrolled" until graduation and (2) the degree, emphasis or certificate area is still accepting students into the program when the student officially declares his/her major.

A student shall be considered to be "continuously enrolled" if he or she does not have an interruption in enrollment of more than one contiguous semester (excluding summer sessions). If an interruption in enrollment occurs so that the student is no longer "continuously enrolled" as described above, the catalog requirements applicable at the time of re-enrollment shall apply.

The student retains the right to use the graduation requirements in any single catalog published during their period of enrollment. The student's major must be listed in that catalog, the major must still be available, and continuous enrollment must be maintained from the period of the designated catalog to the point of MSC degree completion.

If a candidate for a degree is unable to meet the requirements because of an event such as the removal of a required course from the offerings of the College or some other unforeseen academic change, it shall be the candidate's responsibility to arrange an exception or understanding approved by the Registrar and the appropriate department head.

### English and Mathematics Requirements

Mesa State College students are required to complete English composition and mathematics for general education and/or degree distinction prior to exceeding sixty semester credit hours. Students should take the courses as freshmen. Those who need preparatory courses before they are ready to enroll in the required courses should enroll in the preparatory courses their first semester at Mesa State. Students who are completing sixty hours of course work will not be permitted to enroll in any additional courses until they have passed the required courses. Exceptions to the policy for a student require the written permission of the department head.

### Human Performance and Wellness Requirement

To graduate with a baccalaureate degree, a student must earn three semester credit hours in Human Performance and Wellness (HPW). Each student must take HPWA 100 and two activity courses.

To graduate with an associate degree, a student must earn two semester credit hours in Human Performance and Wellness. Each student must take HPWA 100 and one activity course.

Human Performance and Wellness activity courses include those with the "HPWE" prefix in addition to DANC 160, 169, 174 and 177. Each course is scheduled for an eight-week module and includes lectures on the history, rules, techniques and strategies of the activity and participation in the activity. Students are examined both on knowledge of the activity and proficiency in the activity. Prerequisites for all "Intermediate" or Part II classes: the corresponding beginning course or consent of instructor.

1. The only exception to taking HPWA 100 will be for those who request and pass a proficiency test at least at the 80 percent level. Contact the department head for additional information.
2. A course may be taken for credit only once, except for "grade improvement".
3. No more than a total of eight Human Performance and Wellness activity courses of any kind may be taken for credit; any such courses taken beyond the eight for which credit is received must be taken for no credit. There is no limit to the number of HPW activity courses a student may take for "no credit". Should a student take more than eight HPW activity courses for credit, all of the aforementioned courses taken after the eighth course will be excluded in calculation of the student's graduation GPA at the time he or she petitions to graduate.

4. Human Performance and Wellness activity courses may not be used to satisfy elective course requirements for any degree program.

See the HPWE "Course Description" section for the list of courses from which to choose for the HPWE and DANC 160, 169, 174, 177 activity courses.

Varsity Athletics: HPWE 180-189 designates the first year of varsity athletics; 280-289, the second; 380-389, the third; and 480-489, the fourth. These courses must be taken in sequence. In addition to the rules above for all HPWE courses, the following apply:

1. Only one varsity sport activity course, numbered HPWE 180-189, may be used to meet the baccalaureate HPWE activity requirement.
2. A student may elect to register for a particular varsity sports class for credit as many as four times (once at each level).
3. Varsity sports activity credit at the 300 and 400 level may not be counted towards the 40 credit hour upper division requirement for graduation unless they are a required part of a degree program.

### Calculation of Grade Point Average for Graduation

Only the grades and credits awarded at Mesa State College will be used in calculating the student's grade point average for graduation. Grades awarded from any other institution will not be utilized in the grade point average calculation.

The specific discipline area program requirements must be completed as required by the appropriate academic department with a cumulative grade point average of 2.00 or higher.

### Graduation with Honors

To graduate with Honors or Distinction, the student's cumulative grade point average will be used in the determination of inclusion in the Honors/Distinction categories listed below. Each year during formal commencement ceremonies Mesa State College recognizes the following categories of academic achievement:

*With Distinction*—Associate degree graduates with cumulative grade point averages of 3.50 to 3.74.

*With High Distinction*—Associate degree graduates with cumulative grade point averages of 3.75 to 4.00.

*Cum Laude*—Baccalaureate degree graduates with cumulative grade point averages of 3.50 to 3.74.

*Magna Cum Laude*—Baccalaureate degree graduates with cumulative grade point averages of 3.75 to 3.89.

*Summa Cum Laude*—Baccalaureate degree graduates with cumulative grade point averages of 3.90 to 4.00.

Exceptions for students not explicitly meeting the criteria for a particular category may be recommended to the Vice

President for Academic and Student Affairs by the department head or director. The grade point average for honors/distinction at commencement does not include final-term, in-progress courses. The ultimate honors/distinction recognition to appear on the permanent record/transcript will reflect the appropriate category based on the inclusion of the final-term course grades required for the completion of degree requirements.

**Requirements for a Baccalaureate Degree**

Mesa State College offers baccalaureate degrees in the traditional liberal arts and sciences disciplines, professional fields of study, and interdisciplinary fields. Candidates for baccalaureate degrees must accomplish or be governed by, as appropriate, the following:

**Credit Hour Requirements**

In general, 120 semester credit hours are required for completion of each baccalaureate degree program. The distribution of the 120 credit hour requirement is:

- General Education: minimum 33 credit hours
- Degree Distinction: 6 credit hours
- Human Performance and Wellness: 3 credit hours
- Major Requirements: 42-78 credit hours\*
- Unrestricted Electives: 0-36 credit hours

\*Some professional programs may exceed 60 hours.

Students need to work closely with their faculty advisors and obtain a program sheet from that faculty advisor or the department head at the time they begin their baccalaureate degree program at Mesa State College. The student is ultimately and solely responsible for knowing the requirements for a particular degree and for fulfilling those requirements.

The program sheet lists all requirements for the degree program for the catalog under which the student is working. It is to be kept up-to-date by the student and advisor as the student progresses in meeting requirements.

At least 40 semester hours must be earned in courses numbered 300 or higher. A cumulative grade point average of 2.00 or higher for all courses taken and for the courses which comprise the area of the major field of study must be achieved. Each student who receives a baccalaureate degree from Mesa State College must have at least one college mathematics course on his or her transcript with a grade earned of “C” or higher. Some baccalaureate degree programs have additional GPA and other requirements. See a faculty advisor for a program sheet listing specific requirements for the degree and major sought.

In addition to the following, students must earn three semester credits in HPW. Each student must take HPWA 100 and two activity courses.

**Academic Residency for Baccalaureate Degrees**

To receive a baccalaureate degree from Mesa State College, students must complete a minimum of 28 semester hours of credit in no fewer than two semesters of study at Mesa State College with at least 15 semester hours in major discipline courses numbered 300 or higher.

**Degree Distinctions**

The six semester credit hour degree distinction for the B.A. and the B.S./B.B.A. degrees must be outside the general education requirements.

**Bachelor of Arts Distinction**

Candidates for the B.A. degree shall complete at least six semester hours of one classical or modern foreign language which may include:

- FLAF 111, FLAF 112
- FLAG 111, FLAG 112
- FLAS 111, FLAS 112
- FLAS 117, FLAS 118
- FLAV 290 (Ancient Greek or Latin)
- (FLAS 114 AND 115 will not fulfill this requirement)

Students may not satisfy this requirement by taking two beginning level courses in the same language (e.g., FLAS 111 and FLAS 117).

The head of the department of Language, Literature, and Communications may approve courses in other classical or modern languages than those listed. Students must complete the courses with a grade of “C” or higher. At the discretion of the foreign language faculty, the requirement may be satisfied by demonstration of equivalent competency. Students with two or more years of high school coursework in a foreign language may (1) see the department head for placement in a higher level class; (2) receive credit by successful completion of a CLEP test in that language; or (3) pursue another language.

**Bachelor of Science/Bachelor of Business Administration Distinction**

Candidates for the B.S. and B.B.A degrees shall complete at least six semester hours of the following: any college mathematics (MATH) course at or above the college algebra (MATH 113) level and one additional course chosen from any computer science (CSCI) course, any statistics (STAT) course or another college mathematics (MATH) course considered higher level than college algebra (MATH 113). The candidate must complete each of these courses with a grade of “C” or higher. At the discretion of the mathematics and computer science faculty, the requirement may be satisfied by a demonstration of equivalent competency.

The above requirements are separate from and in addition to the General Education requirements (i.e., the same course cannot be used for general education, degree distinction and/or major requirements.)



**English Requirement**

Mesa State College requires that English Composition (ENGL 111 and ENGL 112) or approved substitutes be completed successfully before a student can exceed sixty accumulated semester credit hours. The courses must be taken in sequence, and students are encouraged to take them in consecutive semesters. A “C” or higher must be earned in ENGL 111 before a student can take ENGL 112 and a “C” or higher grade must be earned in ENGL 112 to satisfy this requirement.

**Mathematics Requirement**

Mesa State College requires that the mathematics competency/requirement be completed before students accumulate more than sixty credit hours. Students working towards a baccalaureate degree in nursing are exempt from satisfying this requirement before they reach sixty semester credit hours.

Students seeking the B.A. degree must complete MATH 110 or a higher level mathematics course with a grade of “C” or higher to fulfill their mathematics competency under general education; students seeking the B.S. or B.B.A degree must complete MATH 113 or a higher level mathematics course with a grade of “C” or higher to fulfill their degree distinction.

**Philosophy and Goals of a Baccalaureate Education**

The avowed hope of institutions of higher learning is that students will emerge with well-developed faculties for critical judgment, analytical thought, and an awareness of their world. In the college environment, students are expected to embrace some of the great ideas and expressions of creative energy which characterize the human condition. Specifically, a baccalaureate education emphasizes four areas of cultural achievement:

1. The origins and structure of modern society,
2. The enduring ideas which have inspired man kind through the ages,
3. The scientific world view and its impact on technology, and
4. The expression of the creative spirit in literature and fine arts.

Mesa State College reaffirms these ideals. They are ancient goals tested through the centuries in a tradition which harks back to the earliest universities. Their contemporary expression at Mesa State College will strengthen the foundation of all academic programs.

Educated men and women share a basic body of perception and knowledge. This heritage is at the core of the mission of a baccalaureate college. Other aspects of a student’s curriculum reflect particular talents and career aspirations, but this statement builds upon universals - the acknowledged

foundations of the arts, letters, social and natural sciences in our civilization.

The design of general education has been guided by a nine-fold set of objectives. A Mesa State College baccalaureate graduate should:

1. Be able to communicate effectively in the English language
2. Possess mathematical skills
3. Be aware of the great moral, ethical, and philosophical questions which have endured through the ages
4. Have some knowledge of the origins of our own culture and the existence of others
5. Be able to think critically and recognize issues across a broad spectrum of subjects
6. Understand the complexities of our social, economic and political environment
7. Have a familiarity with the scientific approach to the biological, psychological, and physical universe
8. Appreciate the contributions of literature to our perception of ourselves and our world
9. Appreciate the aesthetic spirit of mankind through a study of some aspect of the performing and visual arts.

**General Education Overview**

Each student must complete the 33 minimum semester credit hour general education requirement of lower division credit as specified by the Mesa State College faculty. For specific course requirements and choices, refer to the section titled Courses Approved for General Education Baccalaureate Degree Requirements.

The only exceptions are for (1) students who have already earned a baccalaureate degree from a regionally accredited institution and (2) students who have an Associate of Arts (A.A.) or Associate of Science (A.S.) degree from a regionally accredited institution or whose transcript contains the “Common Core” statement indicating completion of the Colorado Core Transfer Consortium general education curriculum. In both of these cases, the student’s general education is completed and no further general education course work is required at Mesa State College.

For students seeking to transfer all or part of a General Education Program from another institution, the Mesa State Office of the Registrar will check the program to see if it conforms to the statewide guaranteed transfer program.

Any college-wide general education course required in a student’s major will be replaced with a general education course from the appropriate general education area. The same course may not be counted to satisfy both requirements. Students may select their general education courses from the designated list according to their own preference. The following are guidelines for General Education:

1. Those students who qualify may substitute Honors English (ENGL 129) for ENGL 111 and ENGL 112.

When Honors English is substituted for the ENGL 111 and ENGL 112, only ten General Education courses would be required (30 credit hours).

2. The math competency is required of B.A. students only. It may be satisfied by completing any college mathematics course at or above the MATH 110 level with a grade of "C" or higher. Students may challenge MATH 110 for the purpose of proving competency. Also, students will be deemed mathematically competent if they receive at least a "4" on the Advanced Placement examination in calculus given by the College Entrance Examination Board.
3. Each student who receives a baccalaureate degree from Mesa State College must have at least one college level mathematics course on his or her transcript with a grade of "C" or higher. (B.A. students, see #2 above; B.S. and B.B.A. students, see the Degree Distinctions section or the Mathematics Requirement section in this catalog).
4. A student may satisfy a General Education requirement with an appropriate CLEP or DANTES test, if the test has been approved by the appropriate academic department at Mesa State.
5. No General Education course, except sequential courses, can have a specific course as a prerequisite or co-requisite, unless the prerequisite or co-requisite is in a different discipline.

**General Education Course Requirements**

English: 6 semester hours

Mathematics: 3 semester hours for B.A. students (B.S., and B.B.A. students, see Degree Distinction)

Humanities: 6 semester hours chosen from history, literature, philosophy

Note: B.S. and B.B.A. students must choose three additional semester hours from either the Humanities or the Social/Behavioral Sciences.

Social and Behavioral Science: 6 semester hours chosen from anthropology, economics, geography, political science, psychology, sociology

Note: B.S. and B.B.A. students must choose three additional semester hours from either the Humanities or the Social/Behavioral Sciences.

Fine Arts: 3 semester hours chosen from art, dance, music, theatre

Natural Sciences: 6 semester hours chosen from biology, chemistry, geology, physics, and environmental sciences.  
Note: At least one of the two courses must have an associated lab or field component and both the lecture

and laboratory must be taken in all courses listed which have both if general education credit is to be received. Courses which fit this lecture and laboratory requirement are marked with an asterisk in the Natural Sciences general education list.

Applied Studies: 3 semester hours chosen from foreign language, computer science, business, applied fine arts, speech, occupational courses.

Minimum number of general education credit hours: 33 (except when Honors English is taken).

**CCHE Statewide Guaranteed Transfer Courses**

The following courses have been approved by the Colorado Commission on Higher Education (CCHE) as general education courses that are guaranteed to transfer statewide among all public higher education institutions in Colorado. For information regarding this designation, reference may be made to the CCHE Web Site at <http://www.state.co.us/ccche>, or the Registrar's Office, or your faculty advisor.

- ANTH 201 Cultural Anthropology
- ANTH 222 World Prehistory
- ARTE 115 Art Appreciation
- ARTE 118 Survey of Art, Prehistory to Renaissance
- BIOL 101/101L General Human Biology and Laboratory
- BIOL 102/102L General Organismal Biology and Laboratory
- BIOL 105/105L Attributes of Living Systems and Laboratory
- CHEM 100 Chemistry and Society
- CHEM 121/121L Principles of Chemistry and Laboratory
- CHEM 122/122L Principles of Organic Chemistry and Laboratory
- CHEM 131/131L General Chemistry and Laboratory
- CHEM 132/132L Engineering Chemistry and Laboratory
- ECON 201 Principles of Macroeconomics
- ECON 202 Principles of Microeconomics
- ENGL 111 English Composition
- ENGL 112 English Composition
- ENGL 129 Honors English
- ENGL 131 Western World Literature I
- ENGL 132 Western World Literature II
- ENGL 150 Introduction to Literature
- ENGL 222 Mythology
- ENGL 254 Survey of English Literature I
- ENGL 255 Survey of English Literature II
- ENGL 261 Survey of American Literature I
- ENGL 262 Survey of American Literature II
- ENVS 103/103L Field-Based Introduction to Environmental Science and Laboratory
- GEOG 103 World Regional Geography
- GEO 111/111L Principles of Physical Geology and Laboratory
- GEO 112/112L Principles of Historical Geology and Laboratory
- HIST 101 Western Civilizations

HIST 102 Western Civilizations  
 HIST 131 United States History  
 HIST 132 United States History  
 MATH 110 College Mathematics  
 MATH 113 College Algebra  
 MATH 119 Precalculus Mathematics  
 MATH 149 Honors Mathematics  
 MUSA 220 Music Appreciation  
 PHIL 105 Critical Thinking  
 PHIL 110 Introduction to Philosophy  
 PHYS 111/11L General Physics and Laboratory  
 PHYS 112/112L General Physics and Laboratory  
 PHYS 131/131L Fundamental Mechanics and Laboratory  
 PHYS 132/132L Electromagnetism and Optics and Laboratory  
 POLS 101 American Government  
 POLS 261 Comparative Politics  
 PSYC 150 General Psychology  
 SOCO 260 General Sociology  
 THEA 145 Introduction to Dramatic Literature

### Courses Approved for Mesa State General Education Baccalaureate Degree Requirements

The following courses are approved to meet the general education requirements for a baccalaureate degree from Mesa State College. The courses designated by a check (✓) have been approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

#### English

- ✓ ENGL 111 English Composition **and**
- ✓ ENGL 112 English Composition
- or**
- ✓ ENGL 129 Honors English

#### Mathematics

- ✓ MATH 110\* College Mathematics
- or**
- ✓ MATH 149 Honors Mathematics

\*This requirement is for B.A. students only. All B.A. students must complete MATH 110 or a higher level math class with a grade of "C" or better. Students may challenge MATH 110 for the purpose of proving competency. Also, students will be deemed mathematically competent if they receive at least a "4" on the Advanced Placement examination in calculus given by the College Entrance Examination Board. Each student who receives a baccalaureate degree from Mesa State College will have at least one college level mathematics course with a grade of "C" or higher on his or her transcript (for B.S./B.B.A. degrees, see section on Degree Distinction).

#### Humanities

- ✓ ENGL 131, 132 Western World Literature I, II
- ✓ ENGL 150 Introduction to Literature
- ✓ ENGL 222 Mythology

- ENGL 231, 232 Non-Western World Literature I, II
- ✓ ENGL 254, 255 Survey of English Literature I and II
- ✓ ENGL 261, 262 Survey of American Literature I and II

- ✓ HIST 101, 102 Western Civilization
- ✓ HIST 131, 132 United States History

- ✓ PHIL 110 Introduction to Philosophy

#### Social and Behavioral Sciences

- ✓ ANTH 201 Cultural Anthropology
- ✓ ANTH 222 World Prehistory
- ✓ ECON 201 Principles of Macroeconomics
- ✓ ECON 202 Principles of Microeconomics
- ✓ GEOG 103 World Regional Geography
- ✓ POLS 101 American Government
- ✓ POLS 261 Comparative Politics

- ✓ PSYC 150 General Psychology
- PSYC 233 Human Growth and Development

- SOCO 144 Marriage and Families
- ✓ SOCO 260 General Sociology
- SOCO 264 Social Problems

#### Fine Arts

- ARTE 101 Two-Dimensional Design
- ARTE 102 Three-Dimensional Design
- ✓ ARTE 115 Art Appreciation
- ✓ ARTE 118 Survey of Art History, Ancient-Modern

- DANC 115 Dance Appreciation

- FINE 101 Man Creates

- ✓ MUSA 220 Music Appreciation
- MUSA 266 History of Popular Music

- MUSP 1XX, 2XX Music Performance  
(Any 100 or 200 level MUSP course)

- SPCH 241 Oral Interpretation

- THEA 117, 118, 217, 218 Play Production
- THEA 119, 120, 219, 220 Technical Performance
- THEA 141 Theatre Appreciation
- ✓ THEA 145 Introduction to Dramatic Literature

#### Natural Sciences

- ✓ \*BIOL 101, 101L General Human Biology and Laboratory
- ✓ \*BIOL 102, 102L General Organismal Biology and Laboratory

✓ \*BIOL 105, 105L Attributes of Living Systems and Laboratory

✓ CHEM 100 Chemistry and Society  
 ✓ \*CHEM 121, 121L Principles of Chemistry and Laboratory

✓ \*CHEM 122, 122L Principles of Organic Chemistry and Laboratory

✓ \*CHEM 131, 131L General Chemistry and Laboratory

✓ \*CHEM 132, 132L General Chemistry and Laboratory

ENVS 101 Introduction to Environmental Science

✓ \*ENVS 103, 103L Field-Based Introduction to Environmental Science

GEOL 100 Survey of Earth Science

GEOL 103 Weather and Climate

GEOL 104 Oceanography

GEOL 105 Geology of Colorado

GEOL 107 Natural Hazards and Environmental Geology

✓ \*GEOL 111, 111L Principles of Physical Geology and Laboratory

✓ \*GEOL 112, 112L Principles of Historical Geology and Laboratory

\*GEOL 113, 113L Field-Based Introduction to Physical Geology and Laboratory

PHYS 100 Concepts of Physics

PHYS 101 Elementary Astronomy

\*PHYS 105, 105L Physics by Inquiry

✓ \*PHYS 111, 111L General Physics and Laboratory

✓ \*PHYS 112, 112L General Physics and Laboratory

✓ \*PHYS 131, 131L Fundamental Mechanics and Laboratory

✓ \*PHYS 132, 132L Electromagnetism and Optics and Laboratory

\* Only these courses fulfill the requirement of Natural Science with an associated lab or field component. Both the lecture and laboratory must be taken if general education credit is to be received.

**Applied Studies**

ACCT 201 Principles of Financial Accounting

BIOL 154, 154L Technobiology and Laboratory

BUGB 101 Introduction to Business

BUGB 231 Survey of Business Law

BUGB 249 Personal Finance

CISB 101 Business Information Technology

CSCI 100 Computers in Our Society

CSCI 106 Web Page Design I

CSCI 110 Beginning Programming:

CSCI 120 Technical Software

ENGR 105 Basic Engineering Drawing

ENGR 131 Introduction to Cartography

ENVS 110 Environmental Science and Technology I

FLAF 111, 112 First-Year French I, II

FLAG 111, 112 First-Year German I, II

FLAS 111, 112 First-Year Spanish I, II

FLAS 117, 118 Career Spanish I, II

HPWA 265 First Aid/CPR for the Professional Rescuer

MAMT 100 Machine Shop Studies

MAMT 102 Machine Theory

MAMT 160, 160L Properties of Materials and Laboratory

MATH 121 Calculus for Business

MATH 127 Mathematics of Finance

\*MUSL 130-238 Applied Music Lessons

MUSA 130 Class Piano I

MUSA 131 Class Piano II

MUSA 137 Class Voice I

MUSA 236 Electronic Instrument Technique and Materials

✓ PHIL 105 Critical Thinking

PHIL 275 Introduction to Logic

SPCH 101 Interpersonal Communication

SPCH 102 Speechmaking

SPCH 112 Voice and Diction

TECI 132, 132L Intro to IT Hardware and System Software and Lab

TSTC 100 Introduction to Transportation Services

TSTC 101 Vehicle Service and Inspection

UTEC 120 Industrial Safety Practices

WELD 117, 117L Oxy-Fuel Welding and Cutting I and Laboratory

WELD 118, 118L Oxy-Fuel Welding and Cutting II and Laboratory

WELD 151, 151L Industrial Welding and Laboratory

\*Applied Music Lessons are available for general education only to students who are enrolled concurrently in an MUSP course.

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

In addition, the Human Performance and Wellness requirement must be met (see Human Performance and Wellness under the Graduation Requirements section).

### **Second Baccalaureate Degree and Multiple Concentrations Within One Degree**

Students who meet the requirements may earn any one or more baccalaureate degrees. (See Second Baccalaureate Degree below.)

Under many of the baccalaureate degrees, concentrations are available. Before graduating with a baccalaureate degree, a student may complete requirements for one or several of the concentrations as desired. However, after a degree has been granted, if courses are taken that would have satisfied requirements for an additional concentration, the additional concentration cannot be added to the degree already granted. The course work will be shown on the student's transcript. (See Double Concentration Within a Degree below.)

Students wishing to receive multiple concentrations within one degree must satisfy all the requirements for each concentration. Only one degree will be awarded. All concentrations must be declared on the petition to graduate.

A student seeking a second baccalaureate degree at Mesa State College must earn a minimum of 30 additional semester hours of credit, at least 18 of which must be in courses numbered 300 and higher. None of these 30 credits may have been used toward another baccalaureate degree, and all must be earned at Mesa State College. In addition, the student must satisfy all specific program requirements of the new degree and concentration as well as any graduation requirements not previously met (e.g., the degree distinction). Students with a baccalaureate degree from another institution who are pursuing a second baccalaureate degree from Mesa State College are exempt from the Human Performance and Wellness requirement.

### **Requirements for Teacher Licensure**

Students preparing to teach in the public schools (elementary, secondary, K-12) must contact both the Mesa State College Center for Teacher Education regarding state licensure requirements and the appropriate department head regarding program requirements for the major. It is crucial that students seeking teacher licensure plan their schedules with the advisors mentioned early in their academic careers, preferably the first semester of their work at Mesa State College.

Teacher licensure is a separate process and must be pursued in addition to a baccalaureate degree. See the section on Center for Teacher Education in this catalog.

### **Requirements for Associate Degree Programs: Associate of Arts (A.A.), Associate of Science (A.S.), Associate of Applied Science (A.A.S.)**

#### **Credit Hour Requirements**

For most associate degrees, 60 semester credit hours in approved course work must be earned. A cumulative grade

point average of 2.00 or higher for all courses taken and for the courses which comprise the area of emphasis must be achieved. Some programs have additional GPA requirements.

#### **Academic Residency for Associate Degrees**

To receive an associate degree from Mesa State College, students must complete a minimum of 16 semester hours of credit in no fewer than two semesters of study at Mesa State College.

#### **Associate of Arts (A.A) and Associate of Science (A.S.) Degree Requirements**

A.A. and A.S. degree programs are designed to prepare students for upper division collegiate work (junior level) in colleges and universities granting the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree. All A.A. and A.S. degree programs include the Colorado Statewide General Education Core and will thus meet the lower-division general education requirements of most baccalaureate degree programs in Colorado. A grade of "C" or higher is required in each core course in order to be accepted for transfer under the Core Transfer Agreements. Course work for the A.A. or A.S. degree includes:

1. Completion of the college's general education core which is aligned with the state's general education curriculum. Specific information about the content areas, required hours, and courses are found in the general education requirements listed in the baccalaureate section of the catalog.
2. Discipline area classes (emphasis), as detailed in the Programs of Study section in this catalog or as developed in consultation with a faculty advisor and indicated on the program sheet.
3. Human Performance and Wellness requirement
4. Electives

The A.A. degree is designed for transfer into a baccalaureate degree program, with junior standing, in the arts, humanities, social or behavioral sciences, or one of the professional fields with such disciplines as its base. The A.S. degree is designed for transfer into a baccalaureate degree program, with junior standing, in one of the mathematical, biological, or physical sciences, or in one of the professional fields with such disciplines as its base.

Students should consult with their faculty advisors to assure that the emphasis and electives chosen will satisfy requirements of the particular baccalaureate programs to which they plan to transfer. A.A. and A.S. degrees in emphases not described in this catalog may be developed in consultation with the faculty advisor. An A.A. or A.S. degree indicates that the holder has developed proficiencies sufficient to prepare for upper-division collegiate work and is awarded only for completion of a coherent program of study designed for a specific purpose.

Once a student has decided upon a program of study, he or she needs to obtain a program sheet from the faculty advisor. All degree requirements, as agreed upon, will be included on the program sheet.

## Associate of Applied Science (A.A.S.) Degree Requirements

A.A.S. degree programs are intended to prepare individuals to enter skilled and/or para-professional occupations or to upgrade/stabilize their employment. These programs are not intended for transfer to baccalaureate degree programs; however, certain courses may be accepted toward a baccalaureate degree at some institutions. The A.A.S. degrees available at Mesa State College, along with the courses required to complete each degree, are listed under the Programs of Study section in this catalog.

Students are urged to consult with a faculty advisor and to obtain from the advisor a program sheet for the degree sought.

Course work for the A.A.S. degree includes:

1. General Education Requirements for the A.A.S. Degree include:
  - a. 4 semester hours of Mathematics: UTEC 107 or MATH 113  
See your advisor for the appropriate course.
  - b. 6 semester hours English: ENGL 111 and ENGL 112
  - c. 6 semester hours Social Sciences/ Humanities/and selected Applied Studies chosen from the following:
    - Social Sciences: See the “Social and Behavioral Sciences” general education requirements listed in the Baccalaureate section of the catalog.
    - Humanities: See the “Humanities” general education requirements listed in the Baccalaureate section of the catalog.

Applied Studies: SPCH 101 or SPCH 102

2. Human Performance and Wellness Requirement: 2 semester hours
3. The remaining requirements and electives are found under the specific program in the Programs of Study section in this catalog.
4. Additional Requirements apply for some degrees. See the program sheet for more information.

## Double Emphasis Within an Associate Degree

Students wishing to receive a double emphasis within one degree must satisfy all the requirements for each emphasis. Only one degree will be awarded. All emphases desired must be declared on the petition to graduate.

## Second Associate Degree

A minimum of 15 semester hours of credit beyond that required for the first associate degree must be earned by a student seeking a second associate degree at Mesa State College. A minimum of one semester of residency at Mesa State College is also necessary. In addition, the student must satisfy all specific requirements for the new degree. Only one A.A. and only one A.S. degree may be granted to any student.

## Requirements for Certificates of Occupational Proficiency

Candidates for the Mesa State College Certificate of Occupational Proficiency must satisfy all requirements specified for the certificate with a cumulative grade point average of 2.00 or higher for all courses. A grade lower than “C” in the discipline field will not be counted toward satisfying certificate requirements.



## PROGRAMS OF STUDY

### ACCOUNTING

#### FACULTY

James Buckley, Craig Fossett, Geoffrey Gurka, David Rogers

#### CONTACT INFORMATION

Department of Business, Houston Hall 100, (970) 248-1087

#### PROGRAMS OFFERED

##### Bachelor of Science

Accounting – Information Technology

Accounting – Public Accounting

##### Minor

Accounting

##### Bachelor of Science + Master of Business Administration

This option is a five year (3+2) program that allows students to graduate with a Bachelor of Science in Accounting and a Master of Business Administration. The program meets the CPA certification requirements in all states. See faculty advisor for requirements.

#### Bachelor of Science in Accounting Degree Requirements

General Education (33 minimum credit hours)

B.S. Degree Distinction (Math/Computer Science minimum 6 credit hours)

MATH 113 College Algebra or higher level math

STAT 200 Probability and Statistics

Human Performance and Wellness (3 credit hours)

Accounting Core:

ACCT 201 Principles of Financial Accounting

ACCT 202 Principles of Managerial Accounting

ACCT 321 Intermediate Accounting

ACCT 322 Intermediate Accounting II

ACCT 331 Cost Accounting

ACCT 441 Individual Income Tax

BUGB 351 Business Law I or BUGB 349

Legal Environment of Business

BUGB 352 Business Law II

CISB 205 Advanced Business Software

CISB 210 Fundamentals of Information Systems

ECON 201 Principles of Macroeconomics

ECON 202 Principles of Microeconomics

FINA 301 Managerial Finance

MANG 201 Principles of Management

MANG 491 Business Policies and Management

MARK 231 Principles of Marketing

#### Concentration (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

#### Special Requirements:

To be admitted to the Accounting Program at Mesa State College, students must meet the requirements listed below. Note that admission to the college does not guarantee admission to the program.

1. Prior to admission, potential Accounting majors will be given the classification code for “pre-Accounting.” To be eligible for admission to the program, a student must have successfully completed the following:
  - a. 30 credit hours (entering freshmen are not eligible) with a 2.75 GPA or higher
  - b. Freshman English (ENGL 111 and 112, or 129)
  - c. 9 hours of the General Education requirement excluding the English requirement listed above
  - d. College Algebra (MATH 113) or higher
  - e. Business Information Technology (CISB 101)
  - f. Principles of Management (MANG 201)
  - g. Financial and Managerial Accounting (ACCT 201 & 202) with a minimum 2.5 GPA
2. An application for admission should be submitted to the Accounting Program Admission Committee when the above requirements have been met. Specific admission information may be obtained from the Department. Only students admitted to the Accounting Program will be allowed to enroll in upper division Accounting courses with the exception of Intermediate Accounting I and II and/or Cost Accounting I and II.
3. A grade of “D” in any one of the courses specifically identified above is not acceptable.
4. Exceptions to any of the above requirements may be made by the Admissions Committee in unusual circumstances including, but not limited to, non-traditional student who are starting over after bad grades many years ago.

#### Minor Requirements:

See faculty advisor or department for detailed minor requirements.

## ADMINISTRATIVE OFFICE TECHNOLOGY

#### FACULTY

Alane Wooster

#### CONTACT INFORMATION

Office of Student Services, UTEC UB102, 2508 Blichmann Avenue, (970) 255-2670

#### PROGRAMS OFFERED

##### Certificate of Occupational Proficiency

Administrative Office Technology – General Office Administration

##### Associate of Arts

Administrative Office Technology Emphasis

##### Associate of Applied Science

Administrative Office Technology – Accounting Technician

Administrative Office Technology – Administrative Secretary

Administrative Office Technology – Legal Secretary

Administrative Office Technology – Medical Secretary

**Certificate of Administrative Office Technology – General Office Administration Requirements**

ENGL 090 Basic Writing or ENGL 111 English Composition  
 UTEC 107 Mathematics for Technology  
 OFAD 101 Office Accounting  
 OFAD 153 Beginning Word Processing  
 OFAD 202 Records Management  
 OFAD 105 Ten Key Operations  
 OFAD 201 Office Management  
 OFAD 253 Intermediate Word Processing  
 OFAD 270 Integrated Office Applications  
 Electives (at least 6 credit hours chosen from the following):  
 OFAD 206 Computerized Accounting  
 OFAD 221 Transcription Machines  
 OFAD 147 Medical Terminology  
 OFAD 244 Legal Office Procedures  
 OFAD 248 Medical Coding  
 OFAD 249 Medical Office Procedures  
 OFAD 266 Advanced Word Processing

**Associate of Arts: Administrative Office Technology Emphasis Degree Requirements**

General Education for Associate Degree (34 credit hours)  
 Human Performance and Wellness (2 credit hours)  
 Course requirements specific to this degree  
 ACCT 201 Principles of Financial Accounting  
 BUGB 211 Business Communications  
 CISB 101 Business Information Technology  
 MANG 201 Principles of Management  
 OFAD 153 Beginning Word Processing  
 OFAD 201 Office Management  
 OFAD 202 Records Management  
 OFAD 253 Intermediate Word Processing

**Associate of Applied Science in Administrative Office Technology – Accounting Technician Degree Requirements**

ENGL 111, 112 English Composition (6 credit hours)  
 Social and Behavioral Science, Humanities, or Applied Studies  
 UTEC 107 Mathematics for Technology (4 credit hours)  
 Human Performance and Wellness (2 credit hours)  
 ACCT 201 Principles of Financial Accounting  
 ACCT 202 Principles of Managerial Accounting  
 BUGB 211 Business Communications  
 BUGB 231 Survey of Business Law  
 CISB 101 Business Information Technology  
 CISB 205 Advanced Business Software  
 MANG 121 Human Relations in Business  
 MANG 221 Supervisory Concepts and Practices  
 OFAD 101 Office Accounting  
 OFAD 105 Ten-Key Operations  
 OFAD 153 Beginning Word Processing  
 OFAD 201 Office Management  
 OFAD 202 Records Management  
 OFAD 206 Computerized Office Accounting  
 OFAD 253 Intermediate Word Processing  
 OFAD 270 Integrated Office Applications  
 OFAD 290 Cooperative Education

**Associate of Applied Science in Administrative Office Technology – Administrative Secretary Degree Requirements**

ENGL 111, 112 English Composition (6 credit hours)  
 Social and Behavioral Science, Humanities, or Applied Studies  
 UTEC 107 Mathematics for Technology (4 credit hours)

Human Performance and Wellness (2 credit hours)  
 BUGB 211 Business Communications  
 BUGB 231 Survey of Business Law  
 CISB 101 Business Information Technology  
 MANG 121 Human Relations in Business  
 MANG 221 Supervisory Concepts and Practices  
 OFAD 101 Office Accounting  
 OFAD 153 Beginning Word Processing  
 OFAD 201 Office Management  
 OFAD 202 Records Management  
 OFAD 221 Transcription Machines  
 OFAD 253 Intermediate Word Processing  
 OFAD 266 Advanced Word Processing  
 OFAD 270 Integrated Office Applications  
 OFAD 293 Cooperative Education  
 Electives (3 credit hours)

**Associate of Applied Science in Administrative Office Technology – Legal Secretary Degree Requirements**

ENGL 111, 112 English Composition (6 credit hours)  
 Social and Behavioral Science, Humanities, or Applied Studies  
 UTEC 107 Mathematics for Technology (4 credit hours)  
 Human Performance and Wellness (2 credit hours)  
 BUGB 211 Business Communications  
 BUGB 231 Survey of Business Law  
 CISB 101 Business Information Technology  
 MANG 121 Human Relations in Business  
 MANG 221 Supervisory Concepts and Practices  
 OFAD 101 Office Accounting  
 OFAD 153 Beginning Word Processing  
 OFAD 201 Office Management  
 OFAD 202 Records Management  
 OFAD 221 Transcription Machines  
 OFAD 244 Legal Office Procedures  
 OFAD 253 Intermediate Word Processing  
 OFAD 266 Advanced Word Processing  
 OFAD 270 Integrated Office Applications  
 OFAD 293 Cooperative Education

**Associate of Applied Science in Administrative Office Technology – Medical Secretary Degree Requirements**

ENGL 111, 112 English Composition (6 credit hours)  
 Social and Behavioral Science, Humanities, or Applied Studies  
 UTEC 107 Mathematics for Technology or MATH 113 College Algebra (4 credit hours)  
 Human Performance and Wellness (2 credit hours)  
 BUGB 211 Business Communications  
 BUGB 231 Survey of Business Law  
 CISB 101 Business Information Technology  
 MANG 121 Human Relations in Business  
 OFAD 101 Office Accounting  
 OFAD 147 Medical Terminology  
 OFAD 153 Beginning Word Processing  
 OFAD 202 Records Management  
 OFAD 203 Medical Records Management  
 OFAD 221 Transcription Machines  
 OFAD 248 Medical Coding  
 OFAD 249 Medical Office Procedures  
 OFAD 253 Intermediate Word Processing  
 OFAD 266 Advanced Word Processing  
 OFAD 293 Cooperative Education  
 BIOL 209, 209L Human Anatomy & Physiology and Lab  
 PSYC 233 Human Growth and Development



See faculty advisor or department contact for a program sheet detailing exact and complete requirements for the degree, emphasis, or certificate chosen.

## ART

### FACULTY

William Bradley, Teresa Garner, Charles Hardy, Laverne Mosher, Carolyn Quinn-Hensley, Marilyn Wounded-Head

### CONTACT INFORMATION

Department of Art, Fine Arts 200, (970) 248-1833

### PROGRAMS OFFERED

#### Bachelor of Fine Arts

Art (Leading to K-12 Teacher Licensure)  
Graphic Design  
Studio Art

#### Minors

Art  
Graphic Art

#### Bachelor of Fine Arts In Art (Leading to K-12 Teacher Licensure) Degree Requirements

General Education (minimum 33 credit hours)  
B.A. Distinction (Foreign language 6 credit hours)  
Human Performance and Wellness (3 credit hours)  
Required Courses:

##### Art Education Concentration

ARTE 101 Two-Dimensional Design  
ARTE 102 Three-Dimensional Design  
ARTE 151 Basic Drawing  
ARTE 118 History of Art, Prehistory to Renaissance  
ARTE 119 History of Art, Renaissance to Present  
ARTE 231 Fibers  
ARTE 241 Ceramics – Hand Building  
ARTE 251 Figure Drawing  
ARTE 271 Printmaking – Relief and Intaglio  
ARTE 315 Nineteenth-Century Art  
ARTE 316 Twentieth-Century Art

##### Two of the following courses:

ARTE 281 Sculpture – Modeling and Mold Making  
ARTE 282 Sculpture – Foundry  
ARTE 283 Sculpture – Carving and Construction  
ARTE 284 Ceramic Sculpture

##### One of the following courses:

ARTE 291 Painting  
ARTE 292 Watercolor Painting

##### Art Certification Specialty (6 credit hours chosen from):

ARTE 321 Metalsmithing  
ARTE 342 Intermediate Ceramics  
ARTE 345 Noborigama Wood Fire Ceramics  
ARTE 351 Drawing  
ARTE 371 Printmaking – Relief and Intaglio  
ARTE 372 Printmaking – Lithography  
ARTE 381 Sculpture – Modeling and Mold Making  
ARTE 382 Sculpture – Foundry  
ARTE 383 Sculpture – Carving and Construction  
ARTE 391 Painting  
ARTE 392 Watercolor Painting  
ARTE 396 Topics

#### Education Licensure

EDUC 211 Foundations of Education  
EDUC 342 Pedagogy and Assessment – Secondary  
EDUC 343 Teaching to Diversity  
ARTE 410 Elementary Art Education Methods  
ARTE 410L Field Experience – Elementary Ed Methods  
ARTE 412 Secondary Art Education Methods  
EDUC 442 Integrating Literacy:Secondary/K12 Art  
EDUC 499d Teaching Internship and Colloquia –  
Elementary  
EDUC 499H Teaching Internship and Colloquia -  
Secondary

#### Special Requirements:

1. Students are required to complete ARTE 101, ARTE 102, and ARTE 151 before completing 60 credit hours. These courses are prerequisites to all upper division studio classes and must be completed by the end of the sophomore year. Only 6 credit hours of independent study count toward the degree.
2. Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement. All degree requirements must be completed as described above. Any exceptions or substitutions must be recommended in advance of the faculty advisor and approved by the Department Head.
3. Additional Expenses: Approximately \$100.00 is required for materials and equipment in addition to the cost of textbooks.

#### Bachelor of Fine Arts in Graphic Design Degree Requirements

General Education (minimum 33 credit hours)  
B.A. Distinction (Foreign language 6 credit hours)  
Human Performance and Wellness (3 credit hours)  
Required Courses:

##### Art Studies

ARTE 101 Two-Dimensional Design  
ARTE 102 Three-Dimensional Design  
ARTE 151 Basic Drawing  
ARTE 251 Figure Drawing  
ARTE 118 History of Art, Prehistory to Renaissance  
ARTE 119 History of Art, Renaissance to Present  
ARTE 291 Painting  
ARTE 315 Nineteenth-Century Art  
ARTE 316 Twentieth-Century Art  
ARTE 351 Drawing

##### Graphic Design Courses

GRAR 215 Graphic Design I  
GRAR 221 Graphic Design II  
GRAR 301 Computer Illustration  
GRAR 320 Letterforms and Typography  
GRAR 337 Applied Illustration  
GRAR 338 Advertising Design I  
GRAR 405 Web Site Design  
GRAR 450 Corporate Design  
GRAR 493 Portfolio Construction  
GRAR 499 Internship

##### Art Studio 200 Level (choose one):

ARTE 271 Printmaking – Relief and Intaglio (Fall)  
ARTE 272 Printmaking – Lithography (Spring)

##### Art Studio 300 Level (choose one)

ARTE 371 Printmaking – Relief and Intaglio (Fall)  
ARTE 372 Printmaking – Lithography (Spring)  
ARTE 391 Painting (Fall/Spring)

Electives (12 credit hours)

**Special Requirements:**

1. In an effort to meet industry standards, Macintosh computers are used exclusively in all computer-based GRAR courses. Majors are strongly advised to consider purchasing a Macintosh and related print publication software for personal use.
2. Progression requirements: All graphic design courses must be taken in sequence. All required 200 level courses must be completed before 300 level courses may be taken. All required 300 level courses must be completed before 400 level courses may be taken.
3. Admission into the program after the sophomore year will be contingent upon the student's satisfying the following requirements:
  - a. Completion of Graphic Design Admission Application Form.
  - b. Completion of ARTE 101 Two Dimensional Design, ARTE 102 Three Dimensional Design, ARTE 151 Basic Drawing, GRAR 215 Graphic Design I, and GRAR 221 Graphic Design II, with a grade of B or A.
  - c. 3.00 GPA or better in the major.
  - d. Successful completion of a Graphic Design entrance exam with a minimum grade of 80%.
4. Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement. All degree requirements must be completed as described above. Any exceptions or substitutions must be recommended in advance by the faculty advisor and approved by the Department Head.

**Bachelor of Fine Arts in Studio Art Degree Requirements**

General Education (minimum 33 credit hours)

B.A. Distinction (Foreign language 6 credit hours)

Human Performance and Wellness (3 credit hours)

Required Courses:

Art Studies

- ARTE 101 Two-Dimensional Design
- ARTE 102 Three-Dimensional Design
- ARTE 118 History of Art, Prehistory to Renaissance
- ARTE 119 History of Art, Renaissance to Present
- ARTE 151 Basic Drawing
- ARTE 251 Figure Drawing
- ARTE 300 Exhibitions and Management
- ARTE 351 Drawing
- ARTE 494 Senior Seminar and Portfolio
- ARTE 497 Senior Exhibition

Art History (12 credit hours chosen from):

- ARTE 315 Nineteenth-Century Art
- ARTE 316 Twentieth-Century Art
- ARTE 317 History of American Art, Colonial to Present
- ARTE 318 Developments in Contemporary Art
- ARTE 319 Art of the American West
- ARTE 396 Topics: Art History
- ARTE 496 Topics: Art History

Art Studios (See ARTE Course Description section for list of courses)

- ARTE 200 level studios (9 credit hours)
- ARTE 300 level studios (12 credit hours)
- ARTE 400 level studios (9 credit hours)

**Special Requirements:**

1. Students are required to complete ARTE 101, ARTE 102, and ARTE 151 before completing 60 credit hours. These courses are prerequisites to all upper division studio classes and must be completed by the end of the sophomore year. Only 6 credit hours of independent study count toward the degree.
2. Students are required to participate in exit examinations or other programs deemed necessary to comply with the college accountability requirement. All degree requirements must be completed as described above. Any exceptions or substitutions must be recommended in advance of the faculty advisor and approved by the Department Head.
3. Additional Expenses: Approximately \$100.00 is required for materials and equipment in addition to the cost of textbooks.

See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

## BIOLOGY

**FACULTY**

Richard Ballard, Bruce Bauerle, Phyllis Chowdry, Forbes Davidson, Walter Kelley, Gary McCallister, Denise McKenney, Carrie McVean-Waring, Aparna Palmer, Thomas Walla, Steven Werman

**CONTACT INFORMATION**

Department of Biological Sciences, Wubben Hall 238, (970) 248-1993.

**PROGRAMS OFFERED****Associate of Science**

Biology Emphasis

**Bachelor of Science**

Biological Sciences – Biology

Biological Sciences – Biology (leading to secondary teacher licensure)

**Minor**

Biology

**Associate of Science: Biology Emphasis Degree Requirements**

General Education for Associate Degree (33 credit hours)

Human Performance and Wellness (2 credit hours)

Required Courses:

- BIOL 105, 105L Attributes of Living Systems and Laboratory
- BIOL 106, 106L Principles of Animal Biology and Laboratory
- BIOL 107, 107L Principles of Plant Biology and Laboratory

Additional courses in biology specialization should be selected in consultation with advisor. (10 credit hours)

General Education and course requirements in discipline plus electives chosen in consultation with the student's advisor up to the minimum of 60 credit hours comprise the requirements for this emphasis.

Study directed toward the Associate of Science degree will serve as a basis for the Bachelor of Science degree in the same discipline and also for other programs at Mesa State College and at other colleges. Faculty advisors will assist students in planning programs to meet requirements. Programs of study in the sciences are very sequential and advanced planning for the transition from an associate to a baccalaureate program is crucial for economy of time and effort.

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

### **Bachelor of Science in Biological Sciences Degree Requirements**

General Education (minimum 33 credit hours)

B.S. Degree Distinction

MATH 113 College Algebra (or higher)

STAT 200 Probability and Statistics or MATH 146

Calculus for Biological Sciences

Human Performance and Wellness (3 credit hours)

Required Courses:

BIOL 105, 105L Attributes of Living Systems and Laboratory

BIOL 106, 106L Principles of Animal Biology and Laboratory

BIOL 107, 107L Principles of Plant Biology and Laboratory

BIOL 301, 301L Principles of Genetics and Laboratory

BIOL 483 Senior Thesis or BIOL 482 Senior Research and

BIOL 487 Advanced Research

Additional biology courses must be selected from three of the following areas (minimum of 19 credit hours, 10 credit hours must be upper division)

1. Cell, Developmental, and Molecular

BIOL 302, 302L Cellular Biology and Lab

BIOL 310, 310L Developmental Biology and Lab

BIOL 343, 343L Immunology and Lab

BIOL 425 Molecular Genetics

BIOL 442 Pharmacology

CHEM 315, 315L Biochemistry and Lab

2. Organismal

BIOL 221, 221L Plant Identification and Lab

BIOL 231, 231L Invertebrate Zoology and Lab

BIOL 250, 250L Intro to Medical Microbiology and Lab

BIOL 331, 331L Insect Biology and Lab

BIOL 350, 350L Microbiology and Lab

BIOL 411, 411L Mammalogy and Lab

BIOL 412, 412L Ornithology and Lab

BIOL 416, 416L Ethology and Lab

BIOL 418, 418L Wildlife Management and Lab

BIOL 431, 431L Animal Parasitology and Lab

BIOL 450, 450L Mycology and Lab

3. Anatomical and Physiological

BIOL 209, 209L Human Anatomy and Physiology and Lab

BIOL 210, 210L Human Anatomy and Physiology and Lab

BIOL 241 Pathophysiology

BIOL 341, 341L General Physiology and Lab

BIOL 342, 342L Histology and Lab

BIOL 421, 421L Plant Physiology and Lab

BIOL 423, 423L Plant Anatomy and Lab

BIOL 426, 426L Intro to Electron Microscopy and Lab

BIOL 441, 441L Endocrinology and Lab

4. Ecology, Evolution, and Systematics

BIOL 211, 211L Ecosystem Biology and Lab

BIOL 315 Epidemiology

BIOL 320 Plant Systematics

BIOL 321, 321L Taxonomy of Grasses and Lab

BIOL 403 Evolution

BIOL 405, 405L Advanced Ecological Methods and Lab

BIOL 406 Plant-Animal Interactions

BIOL 407 Tropical Field Biology

BIOL 414, 414L Aquatic Biology and Lab

BIOL 415 Tropical Ecosystems

### **Required Related Study Area:**

CHEM 131, 131L General Chemistry (or higher level)

CHEM 132, 132L General Chemistry (or higher level)

PHYS 111, 111L General Physics (or higher level)

PHYS 112, 112L General Physics (or higher level)

### **Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

Students seeking a degree in Biology (leading to secondary teacher licensure) should see their faculty advisors in both Biology and Teacher Licensure.

### **Special Requirements and Recommendations:**

1. A minimum grade of "C" is required for all "Required Core" and "Required Related Study Area" courses.
2. 20 credit hours of Degree Distinction and Required Relation Study Area must be completed by end of sophomore year ( $\leq 70$  cr. hrs.).

### **Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

## **BUSINESS ADMINISTRATION**

### **FACULTY**

Morgan Bridge, Michael Gallagher, Timothy Hatten, John Knappenberger, Frank Markham, Robert Mayer, Jerry Moorman, Patrick Schutz, Richard Vail

### **CONTACT INFORMATION**

Department of Business, Houston Hall 100, (970) 248-1087

### **PROGRAMS OFFERED**

#### **Associate of Arts**

Business Administration Emphasis

#### **Bachelor of Applied Science**

Business Administration

#### **Bachelor of Business Administration**

Business Economics

Finance

Management

Marketing

Travel, Tourism, and Commercial Recreation  
Management

**Master of Business Administration**

**Minors**

Business Administration  
Economics

**Associate of Arts: Business Administration Emphasis Degree Requirements**

General Education for Associate Degrees (40 credit hours)

Required Courses:

- ACCT 201 Principles of Financial Accounting
- ACCT 202 Principles of Managerial Accounting
- BUGB 101 Introduction to Business
- BUGB 211 Business Communication
- BUGB 231 Survey of Business Law

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

**Bachelor of Applied Science in Business Administration Degree Requirements**

General Education (minimum 33 credit hours)

B.B.A. Degree Distinction (Math/Computer Science minimum 6 credit hours)

Human Performance and Wellness (3 credit hours)

Required Courses:

B.A.S. in Business Administration Core (36 credit hours taken as part of a state approved Associate of Applied Science degree)

Business courses:

- ACCT 201 Principles of Financial Accounting
- MANG 201 Principles of Management
- MARK 231 Principles of Marketing
- MARK 332 Promotion
- BUGB 349 Legal Environment of Business
- FINA 301 Managerial Finance
- MANG 300 Small Business Management
- MANG 302 Entrepreneurship
- MANG 371 Human Resource Management
- MANG 471 Production/Operations Management

Upper division electives (12 credit hours)

If desired, a student may use electives to satisfy requirements for a minor.

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

**Bachelor of Business Administration Degree Requirements:**

Entering freshmen are not eligible for admission to the Business Administration program but students wishing to major in each concentration of the Business Administration area must be admitted into the general College. Admission to Mesa State College does not guarantee admission into the Bachelor of Business Administration program.

Once a student has completed 23 semester credit hours, and has met the other specific criteria for admittance, he or she may apply to the Business Administration Program Admission Committee. Specific admission information may be obtained from the Department of Business.

General Education (33 minimum credit hours)

Required General Education Courses:

ECON 201 Principles of Macroeconomics  
ECON 202 Principles of Microeconomics  
B.B.A. Degree Distinction (Math/Computer Science minimum 6 credit hours)

MATH 113 College Algebra or higher level math  
STAT 200 Probability and Statistics

Human Performance and Wellness (3 credit hours)

Required Courses:

- ACCT 201 Principles of Financial Accounting
- ACCT 202 Principles of Managerial Accounting
- BUGB 105 Freshman Business Seminar
- BUGB 211 Business Communications
- BUGB 349 Legal Environment of Business
- CISB 101 Business Information Technology
- FINA 301 Managerial Finance
- MANG 201 Principles of Management
- MANG 491 Business Policies and Management
- MARK 231 Principles of Marketing

**Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

To be admitted to the concentrations, certain prerequisites must be satisfied. Please see the Business Department Head for complete requirements and application form. Requests for more than 6 hours of internship credit must be approved by the advisor and Department Head.

**Master of Business Administration Degree Requirements:**

See Graduate Policies and Programs section for complete degree requirements.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

**CLASSICAL STUDIES**

**CONTACT INFORMATION**

Department of Languages, Literature, and Communication; Lowell Heiny Hall 445, (970) 248-1687.

**PROGRAMS OFFERED**

**Minor**

Classical Studies

**Minor Requirements:**

See faculty advisor for requirements.

**COMPUTER INFORMATION SYSTEMS**

**FACULTY**

Donald Carpenter, Chad Grabow, Gayla Jo Slauson

**CONTACT INFORMATION**

Department of Business, Houston Hall 100, (970) 248-1087

**PROGRAMS OFFERED**

**Associate of Arts**

Business Computer Information Systems Emphasis

**Bachelor of Science**

Computer Information Systems

**Minor**

Computer Information Systems

**Associate of Arts: Business Computer Information Systems Emphasis Degree Requirements**

General Education for Associate Degrees (34 credit hours)

Human Performance and Wellness (2 credit hours)

Required Courses:

ACCT 201 Principles of Financial Accounting  
 BUGB 211 Business Communications  
 CISB 205 Advanced Business Software  
 CISB 210 Fundamentals of Information Systems  
 CSCI 110 Beginning Programming  
 TECI 260 Info Tech Hardware/System Software  
 Electives (6 credit hours)

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

**Bachelor of Science in Computer Information Systems Degree Requirements**

General Education (minimum 33 credit hours)

B.S. Degree distinction

MATH 121 Calculus for Business) or higher level math as approved by advisor)

STAT 200 Probability and Statistics

Human Performance and Wellness (3 credit hours)

Required Courses:

CSCI 110 Beginning Programming  
 CISB 205 Advanced Business Software  
 CISB 210 Fundamentals of Information Systems  
 CISB 331 Advanced Business Programming  
 CISB 392 Information Systems Theory and Practice  
 CISB 400 Data Communication and Network Management  
 CISB 442 Systems Analysis and Design  
 CISB 451 Database Administration  
 CISB 460 Electronic Commerce Systems  
 CISB 471 Advanced Information Systems  
 TECI 260 IT Hardware and System Software

Business Support Courses

ACCT 201 Principles of Financial Accounting  
 ACCT 202 Principles of Managerial Accounting  
 BUGB 349 Legal Environment of Business  
 ECON 201 Principles of Macroeconomics  
 ECON 202 Principles of Microeconomics  
 FINA 301 Managerial Finance  
 MANG 201 Principles of Management  
 MANG 331 Quantitative Decision Making  
 MARK 231 Principles of Marketing

Electives (18 credit hours, 13 must be upper division)

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

**Special Requirements:**

To be admitted to the Computer Information Systems Program at Mesa State College, students must meet several prerequisites. Prior to admission, potential CIS majors will be given the

classification code for "pre-CIS." To be eligible for admission, a student must have successfully completed the following:

1. 30 credit hours with a 2.50 GPA, or better
2. English Composition (ENGL 111 or 129)
3. Beginning Programming – Vbasic (CSCI 110 or other programming course)
4. Advanced Business Software (CISB 205)
5. Fundamentals of Information Systems (CISB 210)

An application for admission should be submitted to the student's CIS advisor when the above requirements have been met. A grade of "D" in any one of the courses specifically identified above is not acceptable, regardless of overall GPA. The CIS Admissions Committee may make exceptions to any of the above requirements in extraordinary circumstances.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

## COMPUTER SCIENCE

**FACULTY**

Arun Ektare, Warren MacEvoy, Lori Payne, Gary Rader, Anne Spalding

**CONTACT INFORMATION**

Department of Computer Science, Mathematics, and Statistics, Wubben Hall 157, (970) 248-1407

**PROGRAMS OFFERED****Associate of Science**

Computer Science Emphasis

**Bachelor of Science**

Computer Science

**Minor**

Computer Science

**Associate of Science: Computer Science Emphasis Degree Requirements**

General Education for Associate Degrees (minimum 33 credit hours)

Human Performance and Wellness (2 credit hours)

Required Courses:

MATH 151 Calculus I  
 CSCI 111 Computer Science I  
 CSCI 112 Computer Science II  
 CSCI 206 Web Page Design II  
 CSCI 241 Computer Architecture I  
 CSCI 250 Data Structures

Recommended:

MATH 152 Calculus II

Electives (3 credit hours)

(MATH 151 may count as the mathematics general education requirement, leaving a balance of 7 hours of general electives)

**Special Requirements and Recommendations:**

1. It is recommended that a strong background in mathematics (at least Calculus I and Calculus II) be completed simultaneously.
2. General Education and course requirements in the discipline area plus electives chosen in consultation with the student's

advisor up to the minimum of 60 credit hours comprise the requirements for this emphasis.

- No more than one "D" may be used in completed major requirements, and a GPA of at least 2.5 in the major is required.

**Bachelor of Science in Computer Science Degree requirements**

General Education (minimum 33 credit hours)  
 B.S. Degree Distinction (minimum 6 credit hours)  
 MATH 151 Calculus I  
 MATH 152 Calculus II  
 Human Performance and Wellness (3 credit hours)  
 Required Courses:

- CSCI 111 Computer Science I
- CSCI 112 Computer Science II
- CSCI 241 Computer Architecture I
- CSCI 250 Data Structures
- CSCI 321 Assembly Language Programming
- CSCI 330 Programming Language
- CSCI 470 Operating Systems Design
- CSCI 484 Computer Networks
- CSCI 490 Software Engineering
- MATH 369 Discrete Structures I
- STAT 200 Probability and Statistics

Select five courses from the following:

- CSCI 306 Web Page Design III
- CSCI 333 UNIX Systems Programming
- CSCI 337 User Interface Design
- CSCI 375 Object Oriented Programming
- CSCI 380 Operations Research
- CSCI 445 Computer Graphics
- CSCI 450 Compiler Structure
- CSCI 460 Data Base Design
- CSCI 480 Theory of Algorithms
- CSCI 486 Artificial Intelligence
- MATH 361 Numerical Analysis

Unrestricted electives (23-24 credit hours)

No more than one "D" in the major and a GPA of at least 2.5 in the major will be required.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

See faculty advisor for a program sheet detailing exact and complete requirements for the degree chosen.

**CRIMINAL JUSTICE**

Through a cooperative program between Mesa State College and the Delta-Montrose Technical College, students may enroll in an Associate of Applied Science degree program in Criminal Justice with a choice of emphasis: Detentions/Corrections or Police Science. The Detentions/Corrections Academy may be taken separately for a vocational certificate.

Students taking the A.A.S. degree would enroll in the Criminal Justice Program at Delta-Montrose and complete the required general education courses through Mesa State.

**General Education Requirements:**

ENGL 111 and 112 English Composition (6 credit hours)

Social and Behavioral Science, Humanities, or Applied Studies (6 credit hours)

Math (UTEC 107 or higher, 4 credit hours)

Human Performance and Wellness (2 credit hours)

Criminal Justice Core Requirements:

- CRJ 110 Intro to Criminal Justice
- CRJ 111 Substantive Criminal Law
- CRJ 112 Procedural Criminal Law
- CRJ 125 Law Enforcement Operations
- CRJ 135 Judicial Function
- CRJ 145 Correctional Process
- CRJ 210 Constitutional Law
- CRJ 220 Human Relations/Social Conflict
- CRJ 230 Criminology

Contact the Delta-Montrose Technical College at (970) 874-7671 for fees and charges of CRJ courses. Contact the Director of Instruction, UTEC, 2508 Blichmann Avenue, UTEC Building A125, (970) 255-2606 for a program sheet detailing exact and complete requirements for this degree.

**CULINARY ARTS**

**FACULTY**

Daniel Kirby, Wayne Smith, Jonathan St. Peter

**CONTACT INFORMATION**

Office of Student Services, UTEC UB102, 2508 Blichmann Avenue, (970) 255-2670

**PROGRAMS OFFERED**

**Certificate of Occupational Proficiency**

Culinary Arts

**Associate of Applied Science**

Culinary Arts

**Certificate in Culinary Arts Requirements**

General Education

ENGL 111 English Composition

UTEC 107 Math for Technology

Skill Core Requirements

CUAR 121 Introduction to Food Production

CUAR 141 Basic Baking Principles and Ingredients

CUAR 155 Applied Foodservice Sanitation

Electives (select 22 hours from this list)

CUAR 122 Introduction to Hot Foods

CUAR 123 Introduction to Garde Manger

CUAR 124 Food Production Applications

CUAR 131 Vegetables, Starches, Pastas, Breakfast, and Short Order Cookery

CUAR 132 Center of the Plate: Meat

CUAR 133 Center of the Plate: Poultry, Fish

CUAR 134 Food Productions Application II

CUAR 136 Beverage Management

CUAR 138 Dining Room Management

CUAR 142 Basic Yeast-Raised Products and Quick Breads

CUAR 143 Cakes, Pies and Pastries, Cookies

CUAR 144 Baking Applications

CUAR 156 Nutrition for the Food Service Worker

CUAR 157 Menu Planning

CUAR 161 Cost Controls

CUAR 162 Cost, Purchasing, and Pricing

CUAR 165 Computer Applications in the Food Service Industry  
 CUAR 233 Advanced Line Preparation/Cookery  
 CUAR 255 Food Service Supervision  
 CUAR 256 Food Service Marketing  
 CUAR 299 Internship

Students enrolling in the Culinary Arts program must obtain a minimum grade of 2.00 "C" in each course listed in their program sheet, and must satisfy all other graduation requirements. Students seeking a Certificate of Occupational Proficiency must see their faculty advisor before registering for classes.

### Associate of Applied Science in Culinary Arts Degree Requirements

#### General Education

ENGL 111, 112 English Composition (6 credit hours)  
 UTEC 107 Math for Technology (4 credit hours)  
 Social/Behavioral Science or Literature (6 credit hours)  
 Human Performance and Wellness (2 credit hours)

#### Required Courses:

CUAR 121 Introduction to Food Production  
 CUAR 122 Introduction to Hot Foods  
 CUAR 123 Introduction to Garde Manger  
 CUAR 124 Food Production Applications  
 CUAR 131 Vegetables, Starches, Pastas, Breakfast, and Short Order Cookery  
 CUAR 132 Center of the Plate: Meat  
 CUAR 133 Center of the Plate: Poultry, Fish  
 CUAR 134 Food Productions Application II  
 CUAR 136 Beverage Management  
 CUAR 138 Dining Room Management  
 CUAR 141 Basic Baking Principles and Ingredients  
 CUAR 142 Basic Yeast-Raised Products and Quick Breads  
 CUAR 143 Cakes, Pies and Pastries, Cookies  
 CUAR 144 Baking Applications  
 CUAR 155 Applied Food Service Sanitation  
 CUAR 156 Nutrition for the Food Service Worker  
 CUAR 157 Menu Planning  
 CUAR 161 Cost Controls  
 CUAR 162 Cost, Purchasing, and Pricing  
 CUAR 165 Computer Applications in the Food Service Industry  
 CUAR 233 Advanced Line Preparation/Cookery  
 CUAR 255 Food Service Supervision  
 CUAR 256 Food Serving Marketing  
 CUAR 299 Internship

Students enrolling in the Culinary Arts Program must obtain a minimum grade of 2.00 "C" in each course listed on their program sheet, and must satisfy all other graduation requirements.

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

## EDUCATION: EARLY CHILDHOOD

### CONTACT INFORMATION

Center for Teacher Education, Albers Hall 205, (970) 248-1786

### PROGRAMS OFFERED

#### Associate of Arts

Early Childhood Education Emphasis

### Associate of Arts: Early Childhood Education Emphasis Degree Requirements

General Education for Associate Degree (35 credit hours)  
 Human Performance and Wellness (2 credit hours)

#### Required Courses:

EDEC 220\* Introduction to Early Care and Education  
 EDEC 230 Infant & Toddler Curriculum  
 EDEC 240\* Curriculum and Development: Early Childhood  
 EDEC 250 Exceptionalities in Early Education  
 EDEC 299 Student Teaching in Early Education  
 PSYC 233 Human Growth and Development or  
 EDEC 238\* Early Childhood Development  
 Electives (4 credit hours)  
 EDEC 102\* Intro to Early Childhood Lab Tech  
 EDEC 148\* Guidance Strategies for Children  
 BIOL 205\* Health, Nutrition, and Safety  
 EDEC 216\* Early Childhood Admin: Human Relations  
 EDEC 196 Topics  
 EDEC 264 Administration  
 EDEC 290 Early Literacy for the Young Child  
 EDEC 297 Practicum  
 ENGL 240 Children's Literature

\*24 hours required for Childcare Center Director Qualification per Colorado Department of Human Services

See faculty advisor for program sheet detailing exact and complete requirements for the Associate of Arts Degree/Director Qualification and suggested electives.

Study directed toward the Associate of Arts degree may serve as a basis for the Bachelor of Arts degree with Elementary Education licensure. Programs of study are very sequential and advanced planning for the transition from an associate program to a baccalaureate program is crucial for economy of time and effort. Faculty advisors will assist students in planning programs to meet requirements. The curriculum will increase students' understanding of the education and care of young children. Students seeking Childcare Center Director Qualification need to meet with an advisor to assist in planning a program to meet specific certification requirements.

## EDUCATION: TEACHER LICENSURE

### CONTACT INFORMATION

Center for Teacher Education, Albers Hall 205, (970) 248-1786

The Center for Teacher Education offers licensure programs in elementary, secondary, and K-12 education. Licensure to teach in public schools in the State of Colorado requires each teacher candidate to complete a baccalaureate degree including a sequence of professional education courses that include extensive field experiences. Licensure is a separate process from the degree, although both may be pursued concurrently. Formal admission to the Center for Teacher Education is required of all students

expecting to obtain a Colorado Educator License in any teaching field. Please see section in this catalog on the Center for Teacher Education.

In order to complete all licensure requirements in a timely manner it is important that students contact the Center as soon as possible after enrolling at Mesa State College.

## ELECTRIC LINEWORKER

### FACULTY

James Rowley

### CONTACT INFORMATION

Office of Student Services, UTEC UB102, 2508 Blichmann Avenue, (970) 255-2670

### PROGRAMS OFFERED

**Certificate in Occupational Proficiency**  
Electric Lineworker

#### Certificate in Electric Lineworker Program Requirements

- ELCL 111 Mathematical Basic Electricity
- ELCL 120 Fundamentals of Electricity
- ELCL 131 Electrical Distribution Theory I
- ELCL 132 Electrical Distribution Theory II
- ELCL 132L Electrical Distribution Theory II Lab
- ELCL 136L Related Fundamentals I Lab
- ELCL 137 Related Fundamentals II
- ELCL 137L Related Fundamentals II Lab
- ELCL 140 Underground Procedure
- ELCL 140L Underground Procedure Lab
- ELCL 145 Hotline Procedure
- ELCL 145L Hotline Procedure Lab

#### Special Requirements and Recommendations:

Students will be required to have current First Aid and CPR certification before they successfully complete the requirements of this program. This may be achieved by any of the following:

- Holding current cards;
- Obtaining American Red Cross "Standard" or "Advanced" rating and American Heart Association or equivalent certification; or,
- Successfully completing HPWA 265 offered by Mesa State College.

Summer and/or Fall Semester:

ELEC 199, Internship (6 credit hours, 640 contact hours) is required for any students selected to participate in the Western Area Power Administration (WAPA) on-the-job training program. This portion is not a part of the program approved for VA benefits.

Students seeking a Certificate of Occupational Proficiency must obtain a minimum of 2.00 ("C") in each listed course, except ELCL 111 and ELCL 120, and must satisfy all other graduation requirements. See faculty advisor for a program sheet detailing exact and complete requirements for this certificate.

Additional expenses: Students will be required to purchase or have approximately \$560.00 in tools and personal equipment. This does not include required textbooks or an adequate pair of workboots. These costs may vary with student needs and brand or quality of

tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Students received field training and practical theory in all phases of powerline installation and maintenance. An outdoor school laboratory covers climbing, setting and removing various sizes of poles; guy work; conductors; transformers; street lights; installation of services; and the use and care of safety equipment. Climbing and working on poles and towers is required. Prospective students are encouraged to contact the college about physical requirements. This program begins only in the fall semester of each year.

## ELECTRONIC ENGINEERING TECHNOLOGY

### FACULTY

Gordon Koch, John Sluder, Ronald Wilcox, Jack Yon

### CONTACT INFORMATION

Office of Student Services, UTEC UB102, 2508 Blichmann Avenue, (970) 255-2670

### PROGRAM OFFERED

**Associate of Science**

Electronic Engineering Technology Emphasis

#### Associate of Science in Electronic Engineering Technology Degree Requirements

General Education for Associate Degrees (33 credit hours)

Human Performance and Wellness (2 credit hours)

Required Courses:

- CSCI XXX Pascal, FORTRAN, or other approved language (consult with advisor)
- TECI 117, 117L DC Passive Circuits and Lab
- TECI 118, 118L AC Passive Circuits and Lab
- TECI 164, 164L Electronic Circuits I and Lab
- TECI 165, 165L Applied Digital Circuits and Lab
- TECI 231, 231L Electronic Circuits II and Lab
- MATH 130 Trigonometry
- MATH 151 Calculus I

#### Special Requirements and Recommendations:

It is recommended that the student take PHYS 111, 111L, 112 and 112L. See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

Additional expenses: Student will be required to have an appropriate multi-meter (20,000 ohms/volts or more), hand tools costing approximately \$60.00, and a scientific calculator. A power supply kit is required for TECI 117L, approximate cost is \$32.00. This does not include the cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Engineering technology has become very important in the fields of electronics and computer hardware. The engineering technologist works closely with engineers and technicians to assure proper installation and optimum operation of electronic systems. The Associate of Science program is designed specifically to transfer to



a four-year baccalaureate degree program in the same field. By itself, it is not designed for specific employment preparation after only two years of study. Ten specified electronics courses are the same as those in the A.A.S. degree program in Technology Integration – Certified Electronics Technician and will apply toward the completion of this degree. The curriculum is in compliance with state agency policy governing the subject matter content and purpose of Associate of Science degrees.

## ENGLISH

### FACULTY

Julie Barak, Richard Berkey, Esther Broughton, Julie Bruch, Kurtis Haas, Kristen Hague, Robert Johnson, Barry Laga, Maureen Neal, Randy Phillis, William Wright

### CONTACT INFORMATION

Department of Languages, Literature, and Communication; Lowell Heiny Hall 445, (970) 248-1687.

### PROGRAMS OFFERED

#### Bachelor of Arts

English – Literature  
 English – Technical and Professional Writing  
 English – Writing  
 English (leading to secondary teacher licensure)

#### Minors

English – Literature  
 English – Writing

### Bachelor of Arts in English Degree Requirements

General Education (33 minimum credit hours)  
 B.A. Degree Distinction (foreign language 6 credit hours)  
 Human Performance and Wellness (3 credit hours)  
 English Core::  
 ENGL 254 Survey of English Literature I  
 ENGL 255 Survey of English Literature II  
 ENGL 261 Survey of American Literature I  
 ENGL 262 Survey of American Literature II  
 ENGL 421 History of Literary Criticism  
 ENGL 494 Seminar in Literature

### Concentration (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

All English majors must maintain at least a 3.0 average in their upper division ENGL courses as well as a cumulative GPA of at least 2.0

Students seeking a degree in English (leading to secondary teacher licensure) should see their faculty advisors in both English and Teacher Licensure.

### Minor Requirements:

See faculty advisor or department for detailed minor requirements.

## ENVIRONMENTAL SCIENCE AND TECHNOLOGY

### FACULTY

Tamera Minnick, Russell Walker

### CONTACT INFORMATION

Department of Physical and Environmental Sciences, Wubben Hall 238, (970) 248-1993

### PROGRAMS OFFERED

#### Bachelor of Science

Environmental Science and Technology – Environmental Science  
 Environmental Science and Technology – Environmental Restoration and Waste Management  
 Environmental Science (leading to secondary teacher licensure)

#### Minor

Environmental Science and Technology

### Bachelor of Science in Environmental Science and Technology – Environmental Science Degree Requirements

General Education (minimum 33 credit hours)  
 B.S. Degree Distinction (minimum 6 credit hours)  
 MATH 113 College Algebra (or higher)  
 STAT 200 Probability and Statistics  
 Human Performance and Wellness (3 credit hours)

#### Required Core Courses

ENVS 110 Environmental Science and Technology I  
 ENVS 200, 200L Field Methods in Environmental Science and Lab  
 ENVS 331, 331L Water Quality and Lab  
 ENVS 340 Air Quality and Pollution Control  
 ENVS 492 Capstone in Environmental Restoration and Waste Management  
 Other required environmental courses  
 ENVS 210 Environmental Science and Technology II  
 ENVS 312, 312L Soil Properties & Characterization and Lab  
 ENVS 455 Restoration Ecology  
 Restricted Environmental electives (Select a minimum of 11 credit hours from the following):  
 ENVS 301 Environmental Project Management  
 ENVS 313, 313L Characterization of Contaminated Sites and Lab  
 ENVS 332, 332L Intro to Geographic Information Systems and Lab  
 ENVS 350, 350L Ecology & Management of Grasslands & Shrublands and Lab  
 ENVS 315 Mined Lab Rehabilitation  
 ENVS 321 Environmental Risk Analysis  
 ENVS 396 Topics  
 ENVS 413 Environmental Fate & Transport of Contaminants  
 ENVS 420, 420L Adv. Env. Sampling and Analytical Methods and Lab  
 ENVS 431 Water and Wastewater Treatment  
 ENVS 433 Restoration of Aquatic Systems  
 ENVS 496 Topics  
 ENVS 497 Structured Research

## Required Support Courses

POLS 488 Environmental Politics  
 MATH 151 Calculus I or MATH 146 Calculus for the  
 Biological Sciences or STAT 3XX 300-level statistics  
 course  
 BIOL 211, 211L Ecosystem Biology and Lab  
 CHEM 121, 121L Principles of Chemistry and Lab  
 CHEM 122, 122L Principles of Organic Chemistry and  
 Lab or CHEM 131, 131L General Chemistry and Lab  
 and CHEM 132, 132L General Chemistry and Lab  
 6-8 credits selected from Geology and/or Biology.  
 Students must see their advisor for a list of eligible  
 courses

Unrestricted electives (13 credit hours)

**Bachelor of Science in Environmental Science and Technology  
 – Environmental Restoration and Waste Management Degree  
 Requirements**

General Education (33 credit hours)

B.S. Degree Distinction

MATH 151 Calculus I

STAT 200 Probability and Statistics

Human Performance and Wellness (3 credit hours)

Required Core Courses

ENVS 110 Environmental Science and Technology I

ENVS 200, 200L Field Methods in Environmental Science  
 and Lab

ENVS 212, 212L Environmental Health & Safety and Lab

ENVS 221 Science and Technology of Pollution Control

ENVS 301 Environmental Project Management

ENVS 313, 313L Characterization of Contaminated Sites  
 and Lab

ENVS 331, 331L Water Quality and Lab

ENVS 340 Air Quality and Pollution Control

ENVS 410 Environmental Regulatory Compliance

ENVS 420, 420L Adv. Env. Sampling & Analytical  
 Methods and Lab

ENVS 492 Capstone in Environmental Restoration and  
 Waste Management

ENVS 499 Internship

Required Support Courses:

BIOL 105, 105L Attributes of Living Systems and Lab or

GEOL 111, 111L Physical Geology and Lab

CHEM 131, 131L General Chemistry and Lab

CHEM 132, 132L General Chemistry and Lab

CHEM 300 Environmental Chemistry or CHEM 311, 311L  
 Organic Chemistry and Lab

ENGL 385 Technical/Professional Writing

Restricted Electives (a minimum of 7 credit hours selected  
 from the following):

ENVS 321 Environmental Risk Analysis

ENVS 312, 312L Soil Properties & Characterization and  
 Lab

ENVS 315 Mined Land Rehabilitation

ENVS 350, 350L Ecology/Management of  
 Shrublands/Grasslands and Lab

ENVS 396 Topics

ENVS 413 Environmental Fate & Transport of  
 Contaminants

ENVS 431 Water & Wastewater Treatment

ENVS 433 Restoration of Aquatic Systems

ENVS 455 Restoration Ecology

ENVS 496 Topics

Unrestricted electives (11 credit hours)

Students seeking a degree in Environmental Science Education  
 (leading to secondary teacher licensure) should see their  
 faculty advisors in both Environmental Science and Teacher  
 Licensure.

**Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty  
 advisor for a program sheet detailing exact and complete  
 requirements for the major and concentration chosen.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

## GEOGRAPHIC INFORMATION SYSTEMS

### FACULTY

Verner Johnson, Richard Livaccari, Gigi Richard

### CONTACT INFORMATION

Department of Physical and Environmental Sciences, Wubben Hall  
 238, (970) 248-1993

### PROGRAMS OFFERED

**Minor**

Geographic Information Systems

**Minor Requirements:**

See faculty advisor for requirements.

## HISTORY

### FACULTY

Douglas O'Roark, Elizabeth Propes, Paul Reddin, Steven Schulte,  
 Sarah Swedberg

### CONTACT INFORMATION

Department of Social and Behavioral Sciences, Lowell Heiny Hall  
 411, (970) 248-1696

### PROGRAMS OFFERED

**Bachelor of Arts**

History

History (leading to secondary teacher licensure)

**Minor**

History

### Bachelor of Arts in History Degree Requirements

General Education (33 minimum credit hours)

B.A. Degree Distinction (foreign language 6 credit hours)

Human Performance and Wellness (3 credit hours)

Required Courses:

HIST 101 Western Civilization

HIST 102 Western Civilization

HIST 131 United States History

HIST 132 United States History

HIST 404 Introduction to Historical Research

Upper Division courses as follows (21 credit hours)

European History, one course selected from:

- HIST 301 History of England Since 1485  
 HIST 302 History of Modern France  
 HIST 303 History of Modern Germany  
 HIST 330 History of 19th Century Europe  
 HIST 331 The 20th Century  
 HIST 350 Renaissance and Reformation  
 HIST 360 Medieval Europe  
 HIST 400 The Soviet Union and Eastern Europe  
 HIST 430 The Ancient Mediterranean World
- United States History, one course selected from:  
 HIST 342 The Early American Republic  
 HIST 344 The Age of Industry in America  
 HIST 346 History of Modern America  
 HIST 347 Global America: 1970-2000  
 HIST 370 U.S. Women's History I  
 HIST 371 U.S. Women's History II  
 HIST 415 Colonial America  
 HIST 416 The American Revolution  
 HIST 420 Civil War and Reconstruction
- Third World History, one course selected from:  
 HIST 306 History of South and Southeast Asia  
 HIST 310 Latin American Civilization  
 HIST 340 History of the Islamic World  
 HIST 401 East Asia: The Formative Period  
 HIST 403 East Asia and the Modern World  
 HIST 406 History of the African Continent
- Topical History, one course selected from:  
 HIST 315 American Indian History  
 HIST 316 American Slavery  
 HIST 320 The American West  
 HIST 332 History of Modern Warfare  
 HIST 355 Ancient and Medieval Cities  
 HIST 375 American Sport History  
 HIST 405 Introduction to Public History  
 HIST 410 Environmental History  
 HIST 435 Classical Archaeology  
 HIST 440 Early and Medieval Christianity
- Three additional courses selected from the four areas listed above.  
 9 Upper Division hours selected from the following disciplines:  
 Anthropology, Economics, English, Literature, Philosophy, Political Science, Psychology, and Sociology

See faculty advisor for a program sheet detailing exact and complete requirements for the major.

All history majors are encouraged to take an additional six hours of a language beyond the six required for the B.A. degree distinction.

Students who want an option in History (leading to secondary teacher licensure) should see their faculty advisors both in History and Teacher Licensure.

#### **Minor Requirements:**

See faculty advisor for requirements.

## HUMAN PERFORMANCE AND WELLNESS

### **FACULTY**

Jill Cordova, Keith Fritz, Guy Leadbetter, Steven Murray, Susan Yeager

### **CONTACT INFORMATION**

Department of Human Performance and Wellness; Saunders 125, (970) 248-1635.

### **PROGRAMS OFFERED**

#### **Bachelor of Arts**

- Human Performance and Wellness – Adapted Physical Education
- Human Performance and Wellness – Athletic Training
- Human Performance and Wellness – Exercise Science
- Human Performance and Wellness – Sport and Fitness Management
- Human Performance and Wellness (Leading to K-12 Teacher Licensure)

#### **Minors**

- Personal Training
- Sport and Fitness Management

### **Bachelor of Arts in Human Performance and Wellness Degree Requirements**

- General Education (33 minimum credit hours)
- B.A. Degree Distinction (foreign language 6 credit hours)
- Human Performance and Wellness (3 credit hours)
- Required Courses:
  - BIOL 209, 209L Human Anatomy and Physiology and Lab
  - HPWA 200 History and Philosophy of Human Performance
  - HPWA 213 Applications of Physical Fitness and Exercise Prescription
  - HPWA 303, 303L Exercise Physiology and Lab
  - HPWA 309, 309L Anatomical Kinesiology and Lab
  - HPWA 401 Org/Ad/Legal of PE/Sports
  - HPWA 494 Senior Seminar (Capstone)

#### **Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

**Special Requirement:** Red Cross Standard First Aid/CPR certification is required.

Students seeking a degree in Human Performance and Wellness with Teaching should see their faculty advisors in both Human Performance and Wellness and Teacher Licensure.

The National Athletic Trainers Association Board of Certification (NATABOC) will only allow students who have graduated from a Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited Athletic Training Education Program (ATEP) to take the NATABOC national certification exam. The ATEP at Mesa State College (MSC) is accredited through CAAHEP.

To obtain official acceptance requirements for admittance into the ATEP please contact the ATEP Curriculum Director (CD) or visit the ATEP web site. Students may choose the Athletic Training concentration as a freshman; however, they will only be allowed to start field experience hours (observational and provisional athletic training student status) after they have taken HPWA 234 and have completed their freshman year. Please see the ATEP web site for definitions of observational and provisional athletic training students.

There is an annual spring application deadline (March 1) to be considered for official admission into the ATEP. Note that admission into Mesa State College does not guarantee admission into the ATEP. Please see the ATEP Curriculum Director to obtain an application. If accepted, students begin the academic program the next fall. The application process is competitive and acceptance is not guaranteed. Students will be notified by March 15 whether or not they have been accepted into the program. If there is space available, applications may be considered on an individual basis throughout the year. The following requirements must be completed before students may apply for official acceptance to the ATEP.

1. Achieve Class C Provisional Athletic Training Student Status. Contact the ATEP Curriculum Director for a list of required provisional status meetings and skills.
2. Complete a minimum of 200 hours of field experiences in the Mesa State College Athletic Training Room.
3. Have a cumulative GPA of 2.5 or higher
4. Completed Technical Standards Form.
5. Completed the following courses (Grade "C" or higher)
  - a. HPWA 100
  - b. HPWA 200
  - c. HPWA 234
  - d. HPWA 260
  - e. BIOL 209, 209L
6. Application to the Athletic Education Training Program (ATEP):
  - a. The annual application deadline is March 1.
  - b. Students will be notified (if accepted or rejected) by March 15.
  - c. The application process is competitive (there is no guarantee all applicants will be accepted).
  - d. Applications from transfer students at the junior level or above will be accepted after the March 1 deadline and may be granted acceptance directly into the clinical program if space is available. All transfer students must possess the skills and knowledge equivalent to a Class C Provisional Athletic Training Student. (Required skill listed on the ATEP web site at [www.mesastate.edu/schools/sbps/hpw/athletictraining](http://www.mesastate.edu/schools/sbps/hpw/athletictraining)) Contact the ATEP Coordinator of Clinical Experiences for dates and times of transfer student meetings and testing.
7. Once a student has been accepted into the ATEP, he or she must complete the following requirements PRIOR to beginning any clinical rotations (off-site rotations and clinical courses):
  - a. Provide documentation of a completed Hepatitis B Vaccination Series, or documentation that the series has been initiated.
  - b. Provide documentation of current student professional liability insurance.
  - c. Provide documentation of NATA membership (student category).
  - d. Provide documentation of current adult CPR certification.

- e. Provide proof of an annual physical completed by the Mesa State College Team Physicians.
- f. Provide proof of an annual TB test.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

**HUMANITIES**

**CONTACT INFORMATION**

Department of Languages, Literature, and Communication; Lowell Heiny Hall 445, (970) 248-1687.

**PROGRAMS OFFERED**

**Associate of Arts**

Humanities Emphasis

**Associate of Arts: Humanities Emphasis Degree Requirements**

General Education (34 credit hours)

Human Performance and Wellness (2 credit hours)

Course Requirements specific to this emphasis

Twenty-four credits must be earned in a program drawn from one or more of the areas listed below:

- English
- Fine and Performing Arts
- Foreign Languages
- Literature
- Mass Communication
- Philosophy
- Speech

**INTERNATIONAL STUDIES**

**CONTACT INFORMATION**

Department of Social and Behavioral Sciences, Lowell Heiny Hall 411, (970) 248-1696.

**PROGRAMS OFFERED**

**Minor**

International Studies

**Minor Requirements:**

See faculty advisor for requirements.

**LIBERAL ARTS  
(Interdisciplinary Major)**

**CONTACT INFORMATION**

Department of Languages, Literature, and Communication; Lowell Heiny Hall 445, (970) 248-1687.

Center for Teacher Education, Albers Hall 205, (970) 248-1786.

**PROGRAMS OFFERED**

**Bachelor of Arts**

Liberal Arts

Non-Education Option

Elementary Education Option

### Bachelor of Arts in Liberal Arts (Non-Education Option) Degree Requirements

General Education (33 minimum credit hours)  
B.A. Degree Distinction (foreign language 6 credit hours)  
Human Performance and Wellness (3 credit hours)  
Requirements specific to this degree:

The purpose of the Liberal Arts degree is to allow the strong academic student to pursue his or her interdisciplinary interests in a focused, interdisciplinary program of study. Please note that the Liberal Arts degree has two options:

1. The first option is for students pursuing only the B.A. degree. This program sheet is meant for such students. It is an option for students whose academic interests cannot be met by one of Mesa State's traditional degree and who require an individualized course of study.
2. The second option is for students pursuing the degree in liberal arts plus elementary teacher licensure. The program for students pursuing licensure requires very specific classes in order to meet state licensure standards. Therefore, students interested in elementary licensure should use the Liberal Arts/Elementary Education program sheet.

Interdisciplinary Core (15-24 credit hours)

Capstone thesis (3 hours) plus 12-21 lower division in content areas chosen below

Content areas

33-42 Upper Division classes chosen from two or three disciplines

Elective hours (The number needed to total 120 credit hours. At least 40 hours of the 120 must be upper division.)

#### **Special Requirements:**

Declaration of Major:

A student cannot declare a liberal arts major until he or she has completed 60 credit hours of college-level work. The final thirty hours must be completed after the declaration of the liberal arts major and approval of the program of study. To be accepted as a liberal arts major, a student must prepare a proposal for his or her course of study that explains (1) the reason that no other MSC major serves his or her needs and (2) the focus and purpose of the designed program of study. The student must also present a transcript of completed classes with the proposal.

The proposal will be submitted to the department head, who will appoint three faculty members to the liberal arts committee to approve, disapprove, or modify the proposal. The committee will then choose a faculty advisor for the student. This advisor will then monitor the student's progress through the plan for the degree program and will also supervise the student's capstone thesis project. The thesis will be read and evaluated by the advisor and at least one other faculty member appointed by the liberal arts committee.

Grade Point Average:

To graduate with a Liberal Arts degree, a student must have at least a 3.0 GPA in all upper-division classes.

NOTE: Exceptions to core and major requirements may be made by the Liberal Arts Committee and department head.

### Bachelor of Arts in Liberal Arts (Elementary Education Option) Degree Requirements

General Education (33 minimum credit hours)

ENGL 111 English Composition  
ENGL 112 English Composition  
PSYC 233 Human Growth and Development  
SPCH 102 Speechmaking  
MATH 205 Elements of Mathematics (satisfies Mathematics Requirement)

B.A. Degree Distinction (foreign language 6 credit hours)  
Human Performance and Wellness (3 credit hours)

Required Courses:

Interdisciplinary Core

Literacy

ENGL 240 Children's Literature  
ENGL 343 Language Systems and Linguistic Diversity  
ENGL 245 Imaginative Writing

Math

MATH 105\* Elements of Mathematics I  
MATH 301 Mathematics for Elementary Teachers

Social Science

POLS 101 American Government  
ECON 201 Principles of Microeconomics  
HIST 304 History of Colorado

Fine Art

ARTE 410 Elementary Art Education Methods  
Human Performance and Wellness  
HPWA 320 Methods of Teaching Elementary School Physical Education

Science

CHEM 100 Chemistry and Society  
GEOL 100 Survey of Earth Sciences

CONTENT AREAS – Choose one content area (15 hours for each discipline)

English

ENGL 440 History of the English Language  
ENGL 451 Structure of the English Language  
Three additional upper division English courses  
(Consult catalog and English advisor concerning prerequisites for upper division courses)

Social Science

HIST 102 Western Civilizations  
ANTH 201 Cultural Anthropology  
POLS 236 State and Local Government  
6 credit hours chosen from:

ANTH 405 Globalization and Culture Change  
ANTH 410 World Cultures  
HIST 342 The Early American Republic  
HIST 415 Colonial America  
HIST 416 The American Revolution  
HIST 420 Civil War and Reconstruction

Mathematics

STAT 200 Probability and Statistics  
CSCI 110 Beginning Programming  
MATH 151 Calculus I or MATH 146 Calculus for Biological Sciences  
MATH 394 Mathematics Colloquium  
Choose one from the following list:

MATH 369 Discrete Structures  
 MATH 305 Euclidean Geometry  
 STAT 311 Statistical Methods

\*MATH 105 and MATH 205 will be replaced by MATH 105 Honors and MATH 205 Honors for Elementary Education candidates who are choosing the Mathematics content area.

#### Required Education Courses

EDUC 211 Foundations of Education  
 EDUC 341 Pedagogy and Assessment: K-6/Elementary  
 EDUC 343 Teaching to Diversity  
 EDUC 441 Methods of Teaching Language and Literacy: Elementary  
 EDUC 451 Methods of Teaching Mathematics: Early Childhood/Elementary  
 EDUC 461 Methods of Teaching Science & Social Studies: Early Childhood/Elementary  
 EDUC 499C Teaching Internship/Colloquia: Elementary

## MANUFACTURING TECHNOLOGY

### FACULTY

Douglas Freeman, Kevin Kern, William McCracken, Darrel McKay, Brigitte Sundermann, Denis Thibodeau

### CONTACT INFORMATION

Office of Student Services, UTEC UB102, 2508 Blichmann Avenue, (970) 255-2670

### PROGRAMS OFFERED

#### Certificate of Occupational Proficiency

Manufacturing Technology – Computer Aided Design Technology  
 Manufacturing Technology – Machine and Manufacturing Trades  
 Manufacturing Technology – Welding

#### Associate of Science

Manufacturing Technology Emphasis

#### Associate of Applied Science

Manufacturing Technology – Computer Aided Design Technology  
 Manufacturing Technology – Machining Technology  
 Manufacturing Technology – Welding

### Certificate of Occupational Proficiency in Computer Aided Design Technology Requirements

#### Required Courses:

CADT 101 Introduction to Computers  
 CADT 106, 106L Computer Aided Design and Lab  
 CADT 107, 107L Advanced Computer Aided Design and Lab  
 CADT 108, 108L CAD – Mechanical and Lab  
 CADT 109, 109L CAD – Mechanical Advanced and Lab  
 CADT 110, 110L CAD Application and Lab  
 CADT 120, 120L Intro to Still Images and Lab  
 ENGL 111 English Composition  
 MAMT 105 Print Reading/Sketching  
 MAMT 106 Geometric Tolerancing  
 UTEC 107 Mathematics for Technology  
 Electives (3 credit hours with advisor's approval)

Students seeking a Certification of Occupational Proficiency must obtain a minimum grade of 2.00 (“C”) in each course and must satisfy all other graduation requirements.

See faculty advisor for a program sheet detailing exact and complete requirements for this certificate.

The Machine and Manufacturing trades certificate program is designed to give students an opportunity to develop knowledge and competency considered essential for employment as entry level or “apprentice” level machinists. Persons not having an adequate background in mathematics or three dimensional perception skill will be encouraged to enroll in preparatory courses either as prerequisites or co-requisites. Open entry and flexible scheduling is possible in this program.

### Certificate of Occupational Proficiency in Machine and Manufacturing Trades Requirements

#### Required Courses:

CADT 101 Introduction to Computers  
 ENGL 090 Basic Writing or ENGL 111 English Composition  
 MAMT 105 Print Reading/Sketching  
 MAMT 106 Geometric Tolerance  
 MAMT 115, 115L Intro to Machine Shop and Lab  
 MAMT 120, 120L Machine Technology I and Lab  
 MAMT 125, 125L Machine Technology II and Lab  
 MAMT 130, 130L Machine Technology III and Lab  
 MAMT 135, 135L Job Shop Machining I and Lab  
 MAMT 140 Job Shop Machining II and Lab or MAMT 170 Practical Applications  
 MAMT 148 CNC Applications  
 MAMT 151, 151L Numerical Control Machining I and Lab  
 MAMT 155, 155L Numerical Control Machining II and Lab  
 MAMT 160, 160L Properties of Materials and Lab  
 UTEC 107 Mathematics for Technology

### Special Requirements and Recommendations:

Physical requirements on the job include ability to lift up to 50 pounds regularly and to stand for long periods of time while doing machine work. Average hearing and eyesight, natural or corrected is desirable.

Students seeking a Certificate of Occupational Proficiency must obtain a minimum of 2.00 (“C”) in each required MAMT course and must satisfy all other graduation requirements. See faculty advisor for a program sheet detailing exact and complete requirements for this certificate.

Additional expenses: Students in Machine Trades may be required to purchase approximately \$375.00 in safety glasses, tools, and material. This does not include cost of text books. This cost may vary with student needs and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Certificate programs are designed to be employment directed for beginning level jobs. Students should check with a welding instructor/advisor about options for specialized employment training requiring a shorter period of training.

### Certificate of Occupational Proficiency in Welding Requirements

#### Required Courses:

CADT 101 Introduction to Computers  
 ENGL 111 English Composition  
 MAMT 105 Print Reading/Sketching  
 MAMT 160, 160L Properties of Materials and Lab  
 UTEC 107 Mathematics for Technology  
 WELD 110, 110L Shielded Metal Arc Welding I and Lab  
 WELD 115 Welding and Structural Theory  
 WELD 117, 117L Oxy-Fuel Welding/Cutting I and Lab  
 WELD 120 Shielded Metal Arc Welding II and Lab  
 WELD 133 Fabrication Layout  
 WELD 140 Job Shop or WELD 170 Practical Application  
 WELD 211, 211L Gas Metal Arc Welding and Lab  
 WELD 221, 221L Flux Core Arc Welding and Lab

#### Special Requirements and Recommendations:

See faculty advisor for a program sheet detailing exact and complete requirements for this certificate. Students seeking a Certificate of Occupational Proficiency must obtain a minimum of 2.00 ("C") in each required WELD course and must satisfy all other graduation requirements.

Additional expenses: Students in welding may be required to purchase approximately \$200.00 in tools and personal safety and welding equipment. This does not include required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

### Associate of Science: Manufacturing Technology Emphasis Degree Requirements

General Education (33 credit hours)

Human Performance and Wellness (2 credit hours)

#### Required Courses:

CADT 101 Introduction to Computers  
 CADT 106, 106L Basic Computer Aided Design and Lab  
 MAMT 105 Print Reading/Sketching  
 MAMT 115, 115L Introduction to Machine Shop and Lab  
 MAMT 120, 120L Machine Technology I and Lab  
 MAMT 125, 125L Machine Technology II and Lab  
 MAMT 148 CNC Applications  
 MAMT 151, 151L Numerical Control Machining I and Lab  
 MATH 130 Trigonometry and MATH 151 Calculus I (with MATH 113) or MATH 152 Calculus II (with MATH 113) and MATH 253 Calculus III

#### Special Recommendations:

It is recommended that the student take CSCI 100, MATH 113 (prerequisite to MATH 130) and PHYS 111, 111L. See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

Additional Expenses: Students in Machine Trades may be required to purchase approximately \$375.00 in safety glasses, tools, and material. This does not include the cost of textbooks. These costs may vary with student needs and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

The purpose of the A.A.S. in Computer Aided Design Technology is to prepare students for this career. The program will incorporate the concept of CAD with the engineering fields of machining, architecture, electronic and civil design.

### Associate of Applied Science in Manufacturing Technology: Computer Aided Design Technology Degree Requirements

#### General Education

English (ENGL 111 and 112, or 129)

Social and Behavioral Sciences, Humanities or Applied Studies

MATH 113 College Algebra

Human Performance and Wellness (2 credit hours)

Electives (with advisor's approval) (3 credit hours)

#### All of the following courses

CADT 101 Introduction to Computers

CADT 106, 106L Computer Aided Design & Lab

CADT 107, 107L Advanced Computer Aided Design and Lab

CADT 108, 108L CAD – Mechanical and Lab

CADT 109, 109L CAD – Mechanical Advanced and Lab

CADT 110, 110L CAD Application and Lab

CADT 120, 120L Intro to Still Images and Lab

CADT 130, 130L CAD – Civil and Lab

CADT 135, 135L CAD – Civil II and Lab

CADT 140 Architectural Theory

CADT 141 Structural Materials

CADT 142, 142L CAD – Residential Architecture and Lab

CADT 143, 143L CAD – Commercial Architecture and Lab

CADT 150, 150L Advanced Images/Intro to Animation and Lab

MAMT 101 Introduction to Manufacturing

MAMT 105 Print Reading/Sketching

MAMT 106 Geometric Tolerancing

MAMT 115, 115L\* Intro to Machine Shop and Lab

#### Special Requirements and Recommendations:

\*Students may, with the CAD advisor's approval, substitute the following course for MAMT 115 and MAMT 115L; WELD 151 and WELD 151L.

Students seeking an Associate of Applied Science degree must obtain a minimum of 2.00 ("C") in each course and must satisfy all other graduation requirements. See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

The Associate of Applied Science degree program includes many of the same technical courses as the Certificate of Occupational Proficiency. Also included are mathematics, science, electronics and management courses that are essential for job advancement to more technical levels after employment.

### Associate of Applied Science in Manufacturing Technology: Machining Technology Degree Requirements

#### General Education

Physics (PHYS 100 minimum, 3 credit hours)

Social and Behavioral Science or Literature (6 credit hours)

Mathematics (UTEC 107 minimum, 4 credit hours)

English (ENGL 111 & 112 minimum, 6 credit hours))

Human Performance and Wellness (2 credit hours)

#### Required Courses:

CADT 101 Introduction to Computers

CADT 106, 106L Basic Computer Aided Design and Lab  
 MAMT 101 Introduction to Manufacturing  
 MAMT 105 Print Reading/Sketching  
 MAMT 106 Geometric Tolerancing  
 MAMT 115, 115L Introduction to Machine Shop and Lab  
 MAMT 120, 120L Machine Technology I and Lab  
 MAMT 125, 125L Machine Technology II and Lab  
 MAMT 130, 130L Machine Technology III and Lab  
 MAMT 140, 140L Job Shop Machining II and Lab or  
 MAMT 170 Practical Applications  
 MAMT 148 CNC Applications  
 MAMT 151, 151L Numerical Control Machining I and  
 Lab  
 MAMT 155, 155L Numerical Control Machining II and  
 Lab  
 MAMT 160, 160L Properties of Materials and Lab  
 MAMT 207 Introduction to Statistical Process  
 UTEC 220 Industry Employment Practices  
 WELD 151, 151L Industrial Welding and Lab  
 Elective (3 credit hours)

### Special Requirements and Recommendations

Students seeking an Associate of Applied Science degree must obtain a minimum of 2.00 (“C”) in each MAMT course and must satisfy all other graduation requirements. See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

Additional expenses: Students in the Manufacturing Technology Cluster may be required to purchase approximately \$375.00 in safety glasses, tools, and material. This does not include the cost of textbooks. These costs may vary with student needs and brand or quality of tools or equipment purchased. All safety glasses must meet a minimum industry safety standard of Z-87 with side shields.

Courses are designed to give students an adequate knowledge of metals, layout work, and welding processes, along with an opportunity to gain manipulative skills and the related information needed to enter and progress in various welding occupations. Instruction and shop practice is offered in SMAW, GMAW, FCAW, and GTAW of mild steel in all positions as well as pipe and specialty welding. Various cutting and fabrication methods are included. Students can arrange work experience as an elective part of the regular program after completing two semesters or more.

### Associate of Applied Science in Manufacturing Technology: Welding Degree Requirements

#### General Education

English (ENGL 111 and 112 minimum, 6 credit hours)  
 Social and Behavioral Science or Literature (6 credit hours)

Mathematics (UTEC 107 minimum, 4 credit hours)

Human Performance and Wellness (2 credit hours)

#### Required Courses:

CADT 101 Introduction to Computers  
 CADT 106, 106L Basic Computer Aided Design and Lab  
 MAMT 101 Introduction to Manufacturing  
 MAMT 105 Print Reading/Sketching  
 MAMT 106 Geometric Tolerancing  
 MAMT 115, 115L Introduction to Machining and Lab  
 MAMT 150 CNC for Welders  
 MAMT 160, 160L Properties of Materials and Lab

MAMT 207 Statistical Process Control  
 UTEC 220 Industry Employment Practices  
 WELD 110, 110L SMAW I and Lab  
 WELD 115 Welding and Structural Theory  
 WELD 117, 117L OFW and C I and Lab  
 WELD 133 Fabrication Layout  
 WELD 140 Job Shop or WELD 170 Practical Application  
 WELD 211, 211L GMAW and Lab  
 WELD 221, 221L FCAW and Lab  
 WELD 230, 230L GTAW and Lab  
 Elective (3 credit hours)

### Special Requirements and Recommendations

Students seeking an Associate of Applied Science degree must obtain a minimum of 2.00 (“C”) in each required WELD course and must satisfy all other graduation requirements. See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

Additional expenses: Students in Welding may be required to purchase approximately \$200.00 in safety glasses, tools, and material. This does not include required textbooks. These costs may vary with student needs and brand or quality of tools or equipment purchased. All safety glasses must meet a minimum industry safety standard of Z-87 with side shields.

## MASS COMMUNICATIONS

### FACULTY

Byron Evers, Regis Tucci

### CONTACT INFORMATION

Department of Languages, Literature, and Communication; Lowell  
 Heiny Hall 445, (970) 248-1687.

### PROGRAMS OFFERED

#### Bachelor of Arts

Mass Communication – Broadcasting  
 Mass Communication – News/Editorial  
 Mass Communication – Print Media  
 Mass Communication – Public Relations/Advertising

#### Minor

Mass Communication

### Bachelor of Arts in Mass Communication Degree Requirements

General Education (33 minimum credit hours)

B.A. Degree Distinction (foreign language 6 credit hours)

Human Performance and Wellness (3 credit hours)

Mass Communication Core:

MASS 110 Mass Media: Impact and History  
 MASS 201 Writing and Reporting for the Media  
 MASS 397 Practicum  
 MASS 480 Journalism Law and Ethics  
 MASS 490 Theory and Research  
 MASS 494 Seminar  
 MASS 499 Mass Communication 3 cr. hr. elective (one of  
 the courses below OUTSIDE the chosen concentration)  
 MASS 301 Broadcast Journalism Writing  
 MASS 320 Fundamentals of Photojournalism  
 MASS 350 Public Relations Concepts



**Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

**Special Requirements:**

Continuation in the program after the sophomore year will be contingent upon the student's satisfying the following requirements;

1. Completion of the English Composition sequence with at least a 3.0 GPA (no grade below "B")
2. Completion of the two introductory courses (MASS 110 and MASS 201) in Mass Communication, with at least a 2.5 GPA and no grade of "D" or "F".
3. Maintenance of at least a 2.5 GPA in MASS courses, in addition to at least a 2.0 GPA overall, is necessary for Mass Communication majors to proceed to graduation.

**Minor Requirements:**

See faculty advisor for requirements.

## MATHEMATICS

**FACULTY**

Jane Arledge, Cathy Barkley, Cathy Bonan-Hamada, Edward Bonan-Hamada, James Brock, William Davenport, Kenneth Davis, Theresa Friedman, Philip Gustafson, Philip Kavanagh, Timothy Novotny, Erik Packard, Zhong Chao Wu

**CONTACT INFORMATION**

Department of Computer Science, Mathematics, and Statistics,  
Wubben Hall 157, (970) 248-1407

**PROGRAMS OFFERED****Associate of Science**

Mathematics Emphasis

**Bachelor of Science**

Mathematics

Mathematics

Mathematics (leading to secondary teacher licensure)

Computational Science

Statistics

**Minors**

Mathematics

Statistics

**Associate of Science: Mathematics Emphasis Degree Requirements**

General Education (33 credit hours)

Human Performance and Wellness (2 credit hours)

Required Courses:

MATH 151 Calculus I

MATH 152 Calculus II

MATH 253 Calculus III

MATH 260 Differential Equations

STAT 200 Probability and Statistics

Electives (5 credit hours)

**Special Requirements and Recommendations:**

1. CSCI 111 is highly recommended to be included.

2. General Education and course requirements in the discipline area plus electives chosen in consultation with the student's advisor up to the minimum of 60 credit hours comprise the requirements for this emphasis.
3. See faculty advisor for a program sheet detailing exact and complete requirements for this degree.
4. Additional expenses: TI-83 or TI-84 (preferred) or equivalent calculator is recommended or required for mathematics courses.

**Bachelor of Science In Mathematics Degree Requirements**

General Education (minimum 33 credit hours)

B.S. Distinction (Mathematics/Statistics/Computer Science)

STAT 200 Probability and Statistics

CSCI 111 Computer Science I

Human Performance and Wellness

Required Courses:

MATH 151 Calculus I

MATH 152 Calculus II

MATH 240 Intro to Advanced Mathematics

MATH 253 Calculus III

MATH 325 Linear Algebra I

MATH 452 Advanced Calculus I

MATH 490 Abstract Algebra I

MATH 453 Advanced Calculus II or

MATH 491 Abstract Algebra II

MATH 484 Senior Seminar I

MATH 494 Senior Seminar II

Four courses from the following list\*:

MATH 260 Differential Equations

MATH 310 Number Theory

MATH 360 Methods of Applied Math

MATH 361 Numerical Analysis

MATH 365 Mathematical Modeling

MATH 369 Discrete Structures I

MATH 370 Discrete Structures II

MATH 386 Geometries

MATH 420 Introduction to Topology

MATH 430 Mathematical Logic

MATH 450 Complex Variables

MATH 460 Linear Algebra II

MATH 453 Advanced Calculus II or MATH 491

Abstract Algebra

STAT 311 Statistical Methods

MATH 396 Topics or MATH 496 Topics

\*NOTE: at most, one Topics class, which must be 3 credit hours, can be used as one of these four courses.

**Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

No more than one "D" may be used in completing major requirements, and a GPA of at least 2.50 in the major is required.

Additional expenses: Graphing calculator is recommended for several mathematics and statistics courses. See department for recommended models.

Requirements may vary if a concentration is selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

Students seeking a degree in Mathematics (leading to secondary teacher licensure) should see their faculty advisors in both Mathematics and Teacher Licensure.

#### Minor Requirements:

See faculty advisor or department for detailed minor requirements.

## MUSIC

### FACULTY

Monte Atkinson, Jack Delmore, Carlos Elias, Calvin Hofer

### CONTACT INFORMATION

Department of Music, Moss Performing Arts Center 113, (970) 248-1233

### PROGRAMS OFFERED

#### Bachelor of Arts

Music Performance  
Instrumental  
Keyboard  
Vocal

Music Education (Leading to K-12 teacher licensure)

#### Minor

Music (Instrumental or Vocal)

Students seeking admittance as a music major in Mesa State College must pass a performance audition, a music theory placement exam, and a piano proficiency assessment. Admission to Mesa State College does not guarantee admission into a music degree program. Prospective music majors should consult the music department website or contact the music department for information about audition material and scheduling an audition with the faculty in their area of interest.

Following the audition, students will be notified by letter regarding audition results. Students admitted as new music majors will be assigned an advisor, and should plan to attend a SOAR registration and advising session. If the advisor is unavailable, students should contact the Music Department Head.

Students in any baccalaureate degree program at Mesa State College desiring to minor in music should contact the music department to be directed to a faculty member in the student's area of interest. Prospective music minors should schedule a meeting with the faculty member, who will serve as their advisor for the minor in music. Students should be prepared to discuss their musical background, goals, and perform a solo. Requirements for completing a minor in music and course registration information will also be discussed.

The Bachelor of Arts with a concentration in performance is designed for those students who desire a performance-focused career. A strong core curriculum of musicianship courses include music theory, history, literature, pedagogy, ensemble performance and applied study. These courses develop the student's abilities and prepare them to perform in a plethora of venues and genres

such as symphony orchestras, chamber ensembles, armed forces ensembles, musical theaters, opera, and countless entertainment venues. This degree also prepares students to pursue graduate study or to teach privately.

The Bachelor of Arts with a concentration in music education provides students with the knowledge, skills, and musicianship to become a successful music educator. Studies in music theory, history, literature, ensemble performance, and applied study give the student a strong foundation on which to build a successful career in music education. Classes in conducting, instrumental, choral, and elementary techniques as well as music education philosophy develop the skills and knowledge needed for a rewarding career as a K-12 music educator. These skills and knowledge are applied during field experiences as well as during the student teaching internship. Courses taken from the Teacher Education Department lead to a K-12 teaching license in the state of Colorado.

### Bachelor of Arts in Music Degree Requirements

General Education (33 minimum credit hours)

B.A. Degree Distinction (foreign language 6 credit hours)

Human Performance and Wellness (3 credit hours)

Required Courses:

MUSA 111 Music Technology

MUSA 112 Music Technology II

MUSA 114 Theory I – Introduction

MUSA 115 Theory II – Diatonic Concepts

MUSA 116 Ear Training and Sightsinging I

MUSA 117 Ear Training and Sightsinging II

MUSA 214 Theory III

MUSA 215 Theory IV

MUSA 250 Beginning Conducting

MUSA 317 Orchestration

MUSA 326 Music History and Literature I

MUSA 327 Music History and Literature II

MUSA 426 The Music of World Cultures

MUSP 420 Senior Recital

MUSL XXX Music Lessons (2 credit hours from each level 1-4)

MUSP XXX Music Performance (2 credit hours from each level 1-4)

### Options for Performance Majors:

Each student must choose one of the following options and take specific courses required for that option:

Instrumental

Keyboard

Vocal

Please refer to the Music Student Handbook for specific courses in each option.

Students who choose an option in Music Education should see their faculty advisors in both Music and in Teacher Licensure and refer to the program sheets detailing requirements.

Students majoring in music must:

1. Pass all music courses with a C or better
2. Pass the piano proficiency or Class Piano I-IV with a C or better
3. Successfully complete a jury at the end of each semester
4. Pass the Sophomore Review

5. Pass the Senior Recital, including a Senior Recital Preview
6. Participate in regular advising sessions with faculty
7. Music Education majors must meet specific requirements. Please refer to the Music Student Handbook.

**Minor Requirements:**

See faculty advisor for requirements.

## NURSING

**FACULTY**

Sandy Forrest, Susan Goebel, Judy Goodhart, Bethany Hoffman, Jeanne Marie, Kristine Reuss, Cheryl Roy, Cindy Thomas, Susan White

**CONTACT INFORMATION**

Department of Nursing and Radiologic Sciences, Medesy Hall 142, (970) 248-1398

**PROGRAMS OFFERED**

Associate of Applied Science in Nursing (A.A.S.)  
Bachelor of Science in Nursing (B.S.N.)

Students applying to the nursing program must submit additional material. Students applying for admission into the program of nursing must be admitted into the general College. Admission to Mesa State College does not guarantee admission into the nursing program, which requires a separate application. Please contact the nursing and radiologic sciences department for additional information.

**Associate of Applied Science in Nursing Degree Requirements**

General Education

ENGL 111, 112 English Composition (6 credit hours)  
Social/Behavioral Science or Humanities (3 credit hours)  
MATH 113 College Algebra or  
UTEC 107 Math for Technology\*

Human Performance and Wellness (2 credit hours)

Prerequisites:

BIOL 209, 209L Human Anatomy and Physiology I and Lab

BIOL 210, 210L Human Anatomy and Physiology II and Lab

PSYC 233 Human Growth and Development\*\*

Semester I Required Courses:

NURS 206 Advanced Concepts of Medical-Surgical

Nursing I

NURS 288 Practicum: Health and Physical Assessment for Nursing

NURS 211 Nursing Care of Psychiatric Clients

NURS 217 Leadership for Professional Nursing Practice

\*UTEC 107 does not meet the mathematics requirement for the BSN degree.

\*\*Course is counted in General Education, but is also a program requirement

The L.P.N. - A.A.S. program is a component of the nursing career ladder that allows licensed practical nurses (L.P.N.) to advance their career to practice as a registered nurse. Students admitted to

the program must have a current LPN license and meet the admission requirements.

**Bachelor of Science in Nursing Degree Requirements**

General Education (minimum 33 credit hours)

Required General Education Courses

PSYC 150 General Psychology

PSYC 233 Human Growth and Development

B.S. Distinction (Math/Computer Science/Statistics)

MATH 113 College Algebra or higher

STAT 200 Probability and Statistics

Human Performance and Wellness

Required Courses:

\*BIOL 209, 209L Human Anatomy and Physiology and Lab

\*BIOL 210, 210L Human Anatomy and Physiology II and Lab

\*BIOL 241 Pathophysiology

NURS 201, 201L Nursing Fundamentals and Clinical

NURS 202, 202L Health Assessment/Promotion and Clinical

NURS 203 Pharmacology I

NURS 204 Theory/Foundations

NURS 301, 301L Medical/Surgical Nursing and Clinical

NURS 302 Family Nursing

NURS 303 Professional Development

NURS 304 Pharmacology II

NURS 312 Home Health Nursing

NURS 313, 313L Mental Health and Clinical

NURS 314, 314L Childbearing and Clinical

NURS 315, 315L Pediatrics and Clinical

NURS 403, 403L Public Health Nursing and Clinical

NURS 406, 406L Advanced Nursing and Clinical

NURS 407L Research Clinical

NURS 415 Business of Health Care

NURS 411, 411L Leadership and Clinical

NURS 412L Senior Specialty Clinical

NURS 414 Senior Research

\*These courses must have been taken within the last five years to fulfill graduation requirements. If not, the course must be re-taken or competency proven. Contact a nursing advisor.

Electives (upper division, 3-4 credit hours)

Unrestricted (1-2 credit hours)

Upper division NURS course (2 credit hours)

Additional nursing course required for advanced placements: for RN's and LPN's (consult advisor for requirements).

If desired, a student may use electives towards satisfying requirements for a minor.

**Special Requirements** – There is a separate application form.

Please contact the Department of Nursing and Radiologic Sciences.

1. Admission requirements include: High school courses in biology, chemistry and algebra are recommended. All non-nursing college courses must be completed before a student can be admitted to the B.S.N. program. An admission committee selects students from applicants who best meet requirements. In addition, anatomy and physiology and microbiology, each with the lab, and a math course at least at college algebra level are required for admission into the program. All admission materials must be on file in the Nursing Department office prior to September 14 for spring entrance, or prior to February 15 for fall entrance.

2. A separate application for advanced placement is required. Registered Nurse students seeking credit for prior nursing learning experiences will follow “The Colorado Nursing Articulation Model” and will be required to take and successfully complete a nursing course specifically designed for RNs entering the program for degree completion.
3. Students transferring in credit for human anatomy and physiology and/or microbiology courses taken at out-of-state accredited colleges/universities must provide evidence that these courses had separate laboratory components before the course can be accepted to fulfill program requirements. This will not necessarily appear on the transcript.
4. Any RN who desires to enroll in a nursing course for personal enrichment only must secure permission from the course instructor and must register for “no credit desired.” If credit is desired, students must be officially accepted into the nursing program prior to enrolling in the nursing courses to receive credit.
5. Progression requirements: All nursing courses must be completed in sequence. All required 200 level courses must be completed before 300 level nursing courses may be taken. All required 300 level courses must be completed before 400 level nursing courses may be taken. Students must complete all 200 level nursing courses or be an (RN) advanced placement student to enroll in the nursing elective courses.
6. Students must have a 2.0 (“C”) on a 4.0 scale or higher grade for all courses required for completion of the Baccalaureate Degree in nursing. This policy applies regardless of when the course was taken. A “D” grade or lower in any required course is not acceptable.

**PHILOSOPHY**

**FACULTY**

Leslie Miller

**CONTACT INFORMATION**

Department of Languages, Literature, and Communication; Lowell Heiny Hall 445, (970) 248-1687.

**PROGRAMS OFFERED**

**Minor**

Philosophy

**Minor Requirements:**

See faculty advisor for requirements.

**PHYSICAL SCIENCES**

**FACULTY**

Andres Aslan, James Brock, Rex Cole, Craig Dodson, Gordon Gilbert, Verner Johnson, Richard Livaccari, Lawrence Madsen, Tamera Minnick, Gigi Richard, Joseph Richards, William Tiernan, Russell Walker

**CONTACT INFORMATION**

Department of Physical and Environmental Sciences, Wubben Hall 238, (970) 248-1993

**PROGRAMS OFFERED**

**Associate of Science**

Geology Emphasis

Physics Emphasis

**Bachelor of Science**

Physical Sciences – Chemistry

Physical Sciences – Environmental Geology

Physical Sciences – Geology

Physical Sciences – Geology (leading to secondary teacher licensure)

Physical Sciences – Physics

**Minors**

Chemistry

Geology

Physics

Watershed Science

**Associate of Science: Geology Emphasis Degree Requirements**

General Education for Associate Degree (33 credit hours)

Human Performance and Wellness (2 credit hours)

Required Courses:

GEOL 111, 111L Principles of Physical Geology and Lab  
or GEOL 113, 113L Field-Based Intro to Physical Geology and Lab

GEOL 112, 112L Principles of Historical Geology and Lab  
GEOL 250 Environmental Geology

Additional courses in geology specialization (14 credit hours, to be selected in consultation with advisor)

General Education and course requirements in discipline area plus electives chosen in consultation with the student’s advisor up to the minimum of 60 credit hours comprise the requirements for this emphasis.

Study directed toward the Associate of Science degree will serve as a basis for the Bachelor of Science degree with the same discipline and also for other programs at Mesa State College and at other colleges. Faculty advisors will assist students in planning programs to meet requirements. Programs of study in the sciences are very sequential and advanced planning for the transition from an associate program to a baccalaureate program is crucial for economy of time and effort.

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

**Associate of Science: Physics Emphasis Degree Requirements**

General Education for Associate Degree (34 credit hours)

Human Performance and Wellness (2 credit hours)

Required Courses:

PHYS 131, 131L Fundamental Mechanics and Lab

PHYS 132, 132L Electromagnetism and Optics and Lab

PHYS 231 Modern Physics

Electives (11 credit hours)

General Education and course requirements in discipline area plus electives chosen in consultation with the student’s advisor

up to the minimum of 60 credit hours comprise the requirements for this emphasis.

Study directed toward the Associate of Science degree will serve as a basis for the Bachelor of Science degree with the same discipline and also for other programs at Mesa State College and at other colleges. Faculty advisors will assist students in planning programs to meet requirements. Programs of study in the sciences are very sequential and advanced planning for the transition from an associate program to a baccalaureate program is crucial for economy of time and effort.

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

### **Bachelor of Science in Physical Sciences – Chemistry Degree Requirements**

General Education (minimum 33 credit hours)

B.S. Degree Distinction

MATH 151 Calculus I

MATH 152 Calculus II

Human Performance and Wellness (3 credit hours)

Required Courses:

CHEM 131, 131L General Chemistry and Lab

CHEM 132, 132L General Chemistry and Lab

CHEM 211, 211L Quantitative Analysis and Lab

CHEM 311, 311L Organic Chemistry and Lab

CHEM 312, 312L Organic Chemistry and Lab

CHEM 321 Physical Chemistry I

CHEM 322 Physical Chemistry II

CHEM 341 Advanced Laboratory I

MATH 253 Calculus III

PHYS 131 Fundamental Mechanics

PHYS 132, 132L Electromagnetism & Optics & Lab

Restricted Electives (7 credit hours chosen from the following)

CHEM 315, 315L Biochemistry and Lab

CHEM 396 Topics

CHEM 411 Main Group Elements

CHEM 412 Transition Elements

CHEM 421 Advanced Organic Chemistry I

CHEM 422 Advanced Organic Chemistry II

CHEM 431, 431L Instrumental Analysis and Lab

CHEM 482 Senior Research I and

CHEM 483 Senior Research II

CHEM 496 Topics

### **Bachelor of Science in Physical Science – Geology Degree Requirements**

B.S. Degree Distinction

MATH 151 Calculus I

STAT 200 Probability and Statistics

Human Performance and Wellness (3 credit hours)

Required Courses:

GEOL 111, 111L Principles of Physical Geology and Lab

or GEOL 113, 113L Field-Based Intro to Physical Geology and Lab

GEOL 112, 112L Principles of Historical Geology and Lab

GEOL 250 Environmental Geology

GEOL 301, 301L Structural Geology and Lab

GEOL 331, 331L Crystallography & Mineralogy and Lab

GEOL 340, 340L Igneous & Metamorphic Petrology and Lab

GEOL 380 Field Studies

GEOL 390 Computer Applications in Geology

GEOL 402, 402L Applications of Geomorphology and Lab

GEOL 444, 444L Stratigraphy and Sedimentation and Lab

GEOL 490 Seminar

BIOL 105, 105L Attributes of Living Systems and Lab

CHEM 131, 131L General Chemistry and Lab

PHYS 111, 111L General Physics and Lab

#### **Options:**

Specific courses are required if the following options available under this degree are chosen:

Environmental Geology

Geology (leading to secondary teacher licensure)

Students who want an option in Geology (leading to secondary teacher licensure) should see their faculty advisors both in Geology and Teacher Licensure.

### **Bachelor of Science in Physical Science – Physics Degree Requirements**

General Education (33 minimum credit hours)

B.S. Degree Distinction

MATH 151 Calculus I

MATH 152 Calculus II

Human Performance and Wellness (3 credit hours)

Required Courses:

PHYS 131, 131L Fundamental Mechanics and Lab

PHYS 132, 132L Electromagnetism and Optics and Lab

PHYS 231 Modern Physics

PHYS 232 Modern Physics II

PHYS 251 Electronics for Scientists

PHYS 252 Intermediate Laboratory

PHYS 311 Electromagnetic Theory I

PHYS 321 Quantum Theory

PHYS 331 Advanced Laboratory I

PHYS 341 Advanced Dynamics

PHYS 362 Statistical and Thermal Physics

PHYS 422 Quantum Theory II

PHYS 473 Modern Optics

PHYS 482 Senior Research (taken twice)

PHYS 494 Seminar (taken twice)

MATH 253 Calculus III

MATH 260 Differential Equations

MATH 360 Methods of Applied Mathematics

Requirements may vary according to the concentration and option selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major, concentration, and option chosen.

#### **Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

## **POLITICAL SCIENCE**

### **FACULTY**

Timothy Casey, Michael Gizzi, John Redifer

**CONTACT INFORMATION**

Department of Social and Behavioral Sciences, Lowell Heiny Hall 411, (970) 248-1696

**PROGRAMS OFFERED**

**Bachelor of Arts**

- Political Science
- Political Science – Administration of Justice

**Minors**

- Administration of Justice
- Political Science

**Bachelor of Arts in Political Science Degree Requirements**

- General Education (33 minimum credit hours)
- B.A. Degree Distinction (foreign language 6 credit hours)
- Human Performance and Wellness (3 credit hours)

**Required Courses:**

**Political Science Core**

- POLS 101 American Government
- POLS 236 State and Local Government
- POLS 261 Comparative Politics
- POLS 324 The Legislative Process
- POLS 325 The American Presidency
- POLS 342 Public Administration
- POLS 370 World Politics
- POLS 412 Constitutional Law
- POLS 452 Political Theory: Classical/Medieval or POLS 453 Political Theory: Modern
- POLS 475 American/Foreign National Security
- POLS 490 Senior Seminar: Political Science
- SOCI 310 Methods of Social Research
- STAT 200 Probability and Statistics

**Political Science Electives (9 credit hours selected from):**

- POLS 310 Development of U.S. Constitution
- POLS 328 The American Court System
- POLS 352 Religion and Politics
- POLS 355 Politics in the Information Age
- POLS 365 European Government and Politics
- POLS 413 Civil Liberties
- POLS 452 Political Theory: Classical and Medieval (if not used in core) or POLS 453 Political Theory: Modern (if not used in core)
- POLS 488 Environmental Politics and Policy
- POLS 499 Political Science Internship

**Recommended: 9 upper division credit hours from the following disciplines (hours included in general electives):**

- Anthropology, Economics, History, Philosophy, Psychology, or Sociology

See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

Students are encouraged to complete an internship as part of the program. See Course Description section for a description of the internships offered.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

**PSYCHOLOGY**

**FACULTY**

Susan Becker, Christian Buys, Karen Ford, Thomas Graves, Myra Heinrich, Jessica Miller, Harry Tiemann

**CONTACT INFORMATION**

Department of Social and Behavioral Sciences, Lowell Heiny Hall 411, (970) 248-1696

**PROGRAMS OFFERED**

**Bachelor of Arts**

- Psychology
- Psychology – Counseling Psychology

**Minor**

- Psychology

**Bachelor of Arts in Psychology Degree Requirements**

- General Education (33 minimum credit hours)
- B.A. Degree Distinction (foreign language 6 credit hours)
- Human Performance and Wellness (3 credit hours)

**Required Courses:**

- PSYC 150 General Psychology
- \*PSYC 311 Quantitative Research or \*SOCI 310 Methods of Social Research
- PSYC 312, 312L Experimental Psychology and Lab
- PSYC 314, 315L Psychology of Learning and Lab
- PSYC 320 Social Psychology
- PSYC 414 Systems and Theories of Psychology
- STAT 200 Probability and Statistics
- 24 upper division credit hours selected from the following:
  - ANTH 340 Ethnopsychology
  - PSYC 310 Child Psychology
  - PSYC 325 Environmental Psychology
  - PSYC 330 Psychology of Adolescents and Young Adults
  - PSYC 335 Psychology of Women
  - PSYC 340 Abnormal Psychology
  - PSYC 350 Psychology of Adulthood
  - PSYC 360 Sport Psychology
  - PSYC 370 Cross-Cultural Psychology
  - PSYC 395 Independent Study
  - PSYC 396 Topics
  - PSYC 400 Psychological Testing
  - PSYC 410 Drugs and Human Behavior
  - PSYC 412 Industrial and Organizational Psychology
  - PSYC 416 Memory and Cognition
  - PSYC 420 Personality
  - PSYC 422 Sensation and Perception
  - PSYC 425 Forensic Psychology
  - PSYC 430 Biopsychology
  - PSYC 495 Independent Study
  - PSYC 496 Topics

\*If not used in the Psychology Core, one of the following may be a choice as a Psychology Elective:

- SOCI 310 Methods of Social Research or PSYC 311 Quantitative Research Methods

Requirements will vary in the Counseling concentration. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

## RADIOLOGIC TECHNOLOGY

**FACULTY**

Bette Schans, Patrice Ward

**CONTACT INFORMATION**

Department of Nursing and Radiologic Sciences, Medesy Hall 142,  
(970) 248-1398

**PROGRAMS OFFERED**

**Associate of Applied Science**  
Radiologic Technology

Students applying to the radiologic technology program must submit additional material. ACT or SAT scores are required for all radiologic technology applicants. Students applying for admission into the radiologic technology program must be admitted into the general College. Admission to Mesa State College does not guarantee admission into the radiologic technology program, which requires a separate application. Please contact the nursing and radiologic sciences department for additional information.

**Associate of Applied Science in Radiologic Technology Degree Requirements**

**Prerequisite**

BIOL 209, 209L Human Anatomy and Physiology and Lab  
General Education

ENGL 111, 112 English Composition (6 credit hours)  
Social or Behavioral Science, Humanities, or Applied  
Studies (6 credit hours, PSYC 150 General Psychology  
recommended)

Human Performance and Wellness

MATH 113 College Algebra

**Required Courses:**

RTEC 114 Radiographic Clinical Experience I  
RTEC 120 Introduction to Rad Tech and Patient Care  
RTEC 121, 121L Radiographic Anatomy and  
Positioning and Lab  
RTEC 122, 122L Principles of Exposure and Lab  
RTEC 124 Radiographic Clinical Experience II  
RTEC 125 Radiologic Science  
RTEC 131, 131L Radiographic Anatomy and  
Positioning II and Lab  
RTEC 132 Radiographic Equipment and Special  
Imaging and Lab  
RTEC 135 Radiation Biology and Protection  
RTEC 214 Radiographic Clinical Experience III  
RTEC 224 Radiographic Clinical Experience IV  
RTEC 234 Radiographic Clinical Experience V  
RTEC 251 Radiographic Pathology  
RTEC 255 Radiographic Assessment I  
RTEC 261 Radiographic Review  
RTEC 265 Radiographic Assessment II

There is a separate application form used for admittance to the program. Contact the Department of Nursing and Radiologic Sciences.

## SOCIAL SCIENCE (Interdisciplinary Major)

**PROGRAMS OFFERED****Associate of Arts**

Social Science Emphasis

**Bachelor of Arts**

Social Science

**Associate of Arts: Social Science Emphasis Degree Requirements**

General Education (34 credit hours)

Human Performance and Wellness

**Required Courses:**

Students are required to select a minimum of 18 hours of lower-division courses from one or more of the following disciplines

Anthropology

Economics

History

Political Science

Psychology

Sociology

Electives (6 credit hours)

Students wishing to concentrate in a specific discipline should consult with an advisor in that discipline or the Head of the Department of Social and Behavioral Sciences.

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

**Bachelor of Arts in Social Science Degree Requirements**

General Education (33 minimum credit hours)

B.A. Degree Distinction (foreign language 6 credit hours)

Human Performance and Wellness (3 credit hours)

**Required Courses:**

HIST 101 Western Civilization

HIST 102 Western Civilization

HIST 131 United States History

HIST 132 United States History

GEOG 103 World Regional Geography

ANTH 201 Cultural Anthropology

POLS 101 American Government

POLS 261 Comparative Politics

PSYC 150 General Psychology

ECON 201 Principles of Macroeconomics

SOCO 260 General Sociology

International subject to be selected from the following:

(Cannot be from Primary Area):

ANTH 390 World Ethnicity and Nationalism

ANTH 405 Globalization and Cultural Change

ANTH 410 World Cultures

HIST 331 The 20th Century

HIST 332 History of Modern Warfare

HIST 340 History of the Islamic World

HIST 400 The Soviet Union and Eastern Europe

HIST 403 East Asia and the Modern World

POLS 365 European Government and Politics

POLS 370 World Politics

Required Primary and Secondary areas of study

1. Primary and Secondary Requirements – Select one Primary area track and one Secondary area of study from the following academic disciplines: Anthropology, Economics (secondary only), History, Political Science, Psychology or Sociology
  2. Primary area Track requirements: 18-19 credit hours in the discipline selected, 15 of which are upper division. Any courses offered under the discipline may be chosen.
  3. Secondary area requirements: 9 upper division hours in the discipline selected. Any courses offered under the selected discipline may be chosen.
- Electives (14-15 credit hours)

Students will take the exit exam in the Primary Area, with the exception of Anthropology, which does not have an exit exam.

See faculty advisor for a program sheet detailing exact and complete requirements for the major.

- SOCO 316 Social Inequality
  - SOCO 320 Life Course Sociology
  - SOCO 325 Racial and Ethnic Relations
  - SOCO 330 Crime and Delinquency
  - SOCO 340 Sex and Gender
  - SOCO 350 Sociology of Death and Dying
  - SOCO 360 Social Influences of Small Groups  
(Or any other upper division Sociology Elective approved by a Sociology advisor.
- Restricted Electives (Select 9 upper division hours from):
- ANTH 310 Ethnographic Methods
  - ANTH 330 Religion and Culture
  - ANTH 410 World Cultures
  - SOCO 301 Introduction to Human Services
  - PSYC 320 Social Psychology  
(Or any upper division course chosen from Economics, History, or Political Science)

Requirements will vary if a concentration is selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

Student must have a grade of 2.00 in each core course.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

**SOCIOLOGY**

**FACULTY**

Clare Boulanger, Adele Cummings, Barry Michrina, Brenda Wilhelm

**CONTACT INFORMATION**

Department of Social and Behavioral Sciences; Lowell Heiny Hall 411, (970) 248-1696.

**PROGRAMS OFFERED**

**Bachelor of Arts**

- Sociology – Sociology
- Sociology – Anthropology
- Sociology – Criminology
- Sociology – Human Services

**Minors**

- Anthropology
- Sociology

**Bachelor of Arts Sociology Degree Requirements**

- General Education (33 minimum credit hours)
  - B.A. Degree Distinction (foreign language 6 credit hours)
  - Human Performance and Wellness (3 credit hours)
- Required Courses:

- Sociology Core
  - SOCO 260 General Sociology
  - SOCO 264 Social Problems
  - SOCO 400 Classical Social Theory
  - SOCO 410 Contemporary Social Theory
  - STAT 200 Probability and Statistics
  - ANTH 201 Cultural Anthropology
  - SOCI 310 Methods of Social Research
- Sociology Electives (Select 18 upper division hours from the following):
  - ANTH 390 World Ethnicity and Nationalism
  - ANTH 405 Globalization and Culture Change
  - SOCO 300 Political Sociology
  - SOCO 305 Environmental Sociology
  - SOCO 310 Sociology of Religion
  - SOCO 312 Collective Behavior and Social Movements
  - SOCO 314 Population

**SPANISH**

**FACULTY**

Thomas Acker, Andrew Gordon, Luis Silva-Villar, Mayela Vallejos-Ramirez

**CONTACT INFORMATION**

Department of Languages, Literature, and Communication; Lowell Heiny Hall 445, (970) 248-1687.

**PROGRAMS OFFERED**

**Bachelor of Arts**

- Spanish – Applied Professional Spanish
- Spanish – Literature and Language

**Minors**

- Spanish

**Bachelor of Arts in Spanish Degree Requirements**

- General Education (33 minimum credit hours)
- B.A. Degree Distinction (foreign language 6 credit hours)
- Human Performance and Wellness (3 credit hours)
- Spanish Core:
  - FLAS 301 Advanced Spanish Grammar
  - FLAS 302 Advanced Spanish Composition
  - FLAS 311 History and Culture of Spain
  - FLAS 312 History and Culture of Latin America
  - FLAS 314 Advanced Spanish Conversation
  - FLAS 321 Introduction to the Literature of Spain
  - FLAS 322 Introduction to the Literature of Latin America
  - FLAS 411 Spanish and the Nature of Language
  - FLAS 498 Spanish Senior Practicum



**Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

Students seeking a degree in Spanish (leading to secondary teacher licensure) should see their faculty advisors in both Spanish and Teacher Licensure.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

## SPEECH

**CONTACT INFORMATION**

Department of Theatre, Moss Performing Arts Center 113, (970) 248-1233.

**PROGRAMS OFFERED****Minor**

Speech

**Minor Requirements:**

See faculty advisor for requirements.

## TECHNOLOGY INTEGRATION

**FACULTY**

Gordon Koch, John Sluder, Ronald Wilcox, Jack Yon

**CONTACT INFORMATION**

Office of Student Services, UTEC UB102, 2508 Blichmann Avenue, (970) 255-2670

**PROGRAMS OFFERED****Associate of Applied Science**

Technology Integration Cluster  
 Certified Electronics Technician  
 Network Technician  
 Telecommunications Engineer

**Associate of Applied Science in Technology Integration – Certified Electronics Technician Degree Requirements**

## General Education

ENGL 111 and 112 English Composition (6 credit hours)  
 Social and Behavioral Science (6 credit hours)  
 MATH 113 College Algebra (4 credit hours)  
 UTEC 107 Math for Technology (4 credit hours)  
 Human Performance and Wellness

## Required Courses:

UTEC 251 Personal and Professional Leadership Development  
 TECI 117, 117L DC Passive Circuits and Lab  
 TECI 118, 118L AC Passive Circuits and Lab  
 TECI 121 Electronic Design/Layout  
 TECI 132, 132L Intro to Info Tech Hardware/System Software and Lab  
 TECI 164, 164L Electronic Circuits I and Lab  
 TECI 165, 165L Applied Digital Circuits and Lab

TECI 170 Intro to Communications  
 TECI 180 Cisco Networking  
 TECI 231, 231L Electronic Circuits II and Lab  
 TECI 256, 256L Electronic Communication and Lab  
 TECH 260, 260L Info Tech Hardware and System Software and Lab  
 TECI 292 Capstone in Technical Engineering Planning and Economics

**Associate of Applied Science in Technology Integration – Network Technician Degree Requirements**

## General Education

English 111 and 112 English Composition (6 credit hours)  
 SPCH 101 Interpersonal Communications (3 credit hours)  
 Social and Behavioral Science (6 credit hours)  
 MATH 113 College Algebra (4 credit hours)  
 UTEC 107 Math for Technology (4 credit hours)  
 Human Performance and Wellness (2 credit hours)

## Required Courses:

UTEC 251 Personal and Professional Leadership Development  
 TECI 117, 117L DC Passive Circuits and Lab  
 TECI 118, 118L AC Passive Circuits and Lab  
 TECI 132, 132L Intro to Info Tech Hardware/Software and Lab  
 TECI 170 Intro to Communications  
 TECI 180 Cisco Networking I  
 TECI 185 Cisco Networking II  
 TECI 230 Cisco Networking III  
 TECI 235 Cisco Networking IV  
 TECI 260, 260L Info Tech Hardware and Software and Lab  
 TECI 265, 265L Adv. Info Tech Hardware and Software and Lab  
 TECI 292 Capstone in Technical Engineering Planning and Economics

**Associate of Applied Science in Technology Integration – Telecommunications Engineer Degree Requirements**

## General Education

ENGL 111 and 112 English Composition (6 credit hours)  
 Social and Behavioral Science (6 credit hours)  
 MATH 113 College Algebra (4 credit hours)  
 Human Performance and Wellness (2 credit hours)

## Required Courses:

UTEC 107 Math for Technology  
 SPCH 101 Interpersonal Communications  
 SPCH 102 Speechmaking  
 UTEC 251 Personal and Professional Leadership Development  
 TECI 117, 117L DC Passive Circuits and Lab  
 TECI 118, 118L AC Passive Circuits and Lab  
 TECI 132, 132L Intro to Info Tech Hardware/Software and Lab  
 TECI 170 Intro to Communications  
 TECI 180 Cisco Networking I  
 TECI 185 Cisco Networking II  
 TECI 220 Regulations and Standards  
 TECI 240 Telecommunications Engineering  
 TECI 256, 256L Electronic Communications  
 TECI 260, 260L Info Tech Hardware/Software and Lab  
 TECI 292 Capstone in Technical Engineering Planning and Economics

Students enrolling in the Technology Integration program must obtain a minimum grade of 2.00 (“C”) in each course listed on their program sheet, and must satisfy all other graduation requirements.

See faculty advisor for a program sheet detailing exact and complete requirements for this degree.

**THEATRE**

**FACULTY**

Richard Cowden, David Cox, Peter Ivanov, Heather Waggoner

**CONTACT INFORMATION**

Department of Theatre, Moss Performing Arts Center 113, (970) 248-1233.

**PROGRAMS OFFERED**

**Bachelor of Arts**

- Theatre Arts
  - Theatre – Acting Directing
  - Theatre – Dance
  - Theatre – Design/Technical
  - Theatre – Music Theatre

**Minors**

- Theatre
- Dance

**Bachelor of Arts in Theatre Arts Degree Requirements**

- General Education (33 minimum credit hours)
- B.A. Degree Distinction (foreign language 6 credit hours)
- Human Performance and Wellness (3 credit hours)
- Theatre Core
  - THEA 322 Stage Management
  - THEA 472 Performance Seminar or THEA 445 or 446 Senior Tech/Design
  - THEA 401 Performing Arts Management
  - Choose 3 credits from:
    - THEA 119, 120, 219, 229 Technical Performance or THEA 147, 148, 247, 248 Drama Performance or DANP 157, 257, 357 Repertory Dance

**Concentration** (Students must choose one):

Requirements vary with the concentration selected. See faculty advisor for a program sheet detailing exact and complete requirements for the major and concentration chosen.

**Special Requirements and Recommendations:**

1. Students must receive a grade of “C” or better in emphasis core requirements and courses in the specific options. General Education, support courses, and electives are excluded from the minimum “C” requirements.
2. It is recommended that students who are interested in pursuing graduate programs and/or teacher licensure programs maintain at least an overall 3.2 GPA with “A’s” in the major courses.
3. It is advisable for each student to choose a minor in consultation with his or her advisor.

**Minor Requirements:**

See faculty advisor or department for detailed minor requirements.

**TRANSPORTATION SERVICES**

**FACULTY**

Bradley Buchholz, James Goetz, Gary Looft, James Pittsenbarger

**CONTACT INFORMATION**

Office of Student Services, UTEC UB102, 2508 Blichmann Avenue, (970) 255-2670

**PROGRAMS OFFERED**

**Certificate of Occupational Proficiency**

- Transportation Services – Automotive Service
- Transportation Services – Diesel Mechanics

**Associate of Applied Science**

- Transportation Services – Automotive Technology
- Transportation Services – Diesel Technology

**Certificate of Occupational Proficiency in Transportation Services – Automotive Service Requirements**

Required Courses:

- TSTC 100 Intro to Transportation Services
  - TSTC 101 Vehicle Service and Inspection
  - TSTC 110 Engine Fundamentals
  - TSTC 130 Electrical Fundamentals
  - TSTC 140 Drive Train Fundamentals
  - TSTC 180 Fuel System Fundamentals
  - TSTC 171 Brake System Fundamentals
  - TSTC 160 Electronic Control System Fundamentals
  - TSTC 170 Chassis Fundamentals
  - TSTC 190 Climate Control Fundamentals
  - UTEC 107 Mathematics for Technology
  - UTEC 120 Industrial Safety Practices
  - UTEC 150 Fluid Power
  - WELD 151/151L Industrial Welding and Lab
- Electives (13 hours selected from the following):
- TSTA 245 Manual Drive Trains
  - TSTA 265 Engine Control Service
  - TSTA 267 Body and Chassis Controls
  - TSTA 275 Alignment and Suspension Service
  - TSTA 287 Engine Performance and Emissions
  - TSTG 115 Gas Engine Recon
  - TSTG 135 Electrical Component Repair
  - TSTG 175 Hydraulic Brake Service
  - TSTG 195 Climate Control Service
  - UTEC 220 Industry Employment Practices

**Certificate of Occupational Proficiency in Transportation Services – Diesel Mechanics Requirements**

Required Courses:

- TSTC 100 Intro to Transportation Services
- TSTC 101 Vehicle Service and Inspection
- TSTC 110 Engine Fundamentals
- TSTC 130 Electrical Fundamentals
- TSTC 140 Drive Train Fundamentals
- TSTC 180 Fuel System Fundamentals
- TSTC 171 Brake System Fundamentals
- TSTC 160 Electronic Control System Fundamentals
- TSTC 170 Chassis Fundamentals
- TSTC 190 Climate Control Fundamentals
- UTEC 107 Mathematics for Technology
- UTEC 120 Industrial Safety Practices

UTEC 150 Fluid Power

WELD 151, 151L Industrial Welding and Lab

Electives (13 hours selected from the following):

TSTA 245 Manual Drive Trains

TSTA 287 Engine Performance & Emissions

TSTD 177 Air Brakes Repair and Service

TSTD 215 Diesel Engine Recon

TSTD 265 Diesel Engine Controls

TSTD 275 Heavy Duty Suspensions

TSTD 285 Diesel Fuel Injection

TSTG 135 Electrical Component Repair

UTEC 220 Industry Employment Practices

Students seeking a Certificate of Occupational Proficiency must obtain a minimum of 2.00 ("C") in each course.

Additional expenses: Students entering the program may be required to purchase or have hand tools and appropriate personal clothing and safety gear with a total cost of approximately \$1,375.00. This does not include the cost of required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

#### **Associate of Applied Science in Transportation Services – Automotive Technology Degree Requirements**

Automotive technology covers general service and repair of vehicles in today's society. Courses will cover theory, applications, maintenance, repair and diagnosis of vehicle systems using hand, power and specialty tools and equipment. Diagnostics and computer systems receive special emphasis. UTEC is a satellite training center for Ford, Chrysler, Toyota, and Subaru.

##### General Education

English 111 and 112 English Composition (6 credit hours)

Social and Behavioral Science, Humanities, or Applied Studies (6 credit hours)

Mathematics (UTEC 107, 4 credit hours)

Human Performance and Wellness

##### Required Courses:

TSTC 100 Introduction to Transportation Services

TSTC 101 Vehicle Service and Inspection

TSTC 110 Engine Fundamentals

TSTC 130 Electrical Fundamentals

TSTC 140 Drive Train Fundamentals

TSTC 160 Electronic Control Systems

TSTC 170 Chassis Fundamentals

TSTC 171 Brake System Fundamentals

TSTC 180 Fuel System Fundamentals

TSTC 190 Climate Control Fundamentals

UTEC 120 Industrial Safety Practices

UTEC 150 Fluid Power

UTEC 220 Industry Employment Practices

WELD 151, 151L Industrial Welding Laboratory

Electives (Choose 27 credit hours from the following):

TSTA 245 Manual Drive Trains

TSTA 247 Automatic Drive Train Service

TSTA 265 Engine Control Service

TSTA 267 Body and Chassis Controls

TSTA 275 Alignment and Suspension Service

TSTD 285 Diesel Fuel Injection

TSTG 115 Gas Engine Reconditioning

TSTG 135 Electrical Component Repair

TSTG 140 Job Shop

TSTG 170 Practical Applications

TSTG 175 Hydraulic Brake Service

TSTG 195 Climate Control Service

TSTA 287 Engine Performance & Emissions

TSTG 240 Advanced Job Shop

TSTG 270 Advanced Practical Applications

Students seeking an Associate of Applied Science degree must obtain a minimum of 2.00 ("C") in each course entitled TSTC, TSTG, and TSTA.

Additional expenses: Students entering the program may be required to purchase or have hand tools and appropriate personal clothing and safety gear with a total cost of approximately \$1,375.00. This does not include the cost of required textbooks. The above costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry standard of Z-87 with side shields.

See a faculty advisor for a program sheet detailing exact program requirements.

#### **Associate of Applied Science in Transportation Services – Diesel Technology Degree Requirements**

Diesel technology covers general service and repair of diesel powered vehicles in today's society. Course will cover theory, applications, maintenance, repair and diagnosis of vehicle systems using hand, power and specialty tools and equipment. Diagnostics and computer systems receive special emphasis.

##### General Education

ENGL 111 and 112 English Composition (6 credit hours)

Social and Behavioral Science, Humanities, or Applied Studies (6 credit hours)

Mathematics (UTEC 107, 4 credit hours)

Human Performance and Wellness

##### Required Courses:

TSTC 100 Introduction to Transportation Services

TSTC 101 Vehicle Service and Inspection

TSTC 110 Engine Fundamentals

TSTC 130 Electrical Fundamentals

TSTC 140 Drive Train Fundamentals

TSTC 160 Electronic Control Systems

TSTC 170 Chassis Fundamentals

TSTC 171 Brake System Fundamentals

TSTC 180 Fuel System Fundamentals

TSTC 190 Climate Control Fundamentals

UTEC 120 Industrial Safety Practices

UTEC 150 Fluid Power

UTEC 220 Industry Employment Practices

WELD 151, 151L Industrial Welding and Lab

Electives (Choose 30 hours minimum from the following):

TSTA 245 Manual Drive Trains

TSTA 287 Engine Performance and Emission

TSTD 177 Air System Repair and Service

TSTD 215 Diesel Engine Recon

TSTD 265 Diesel Engine Controls

TSTD 275 Heavy Duty Suspension

TSTD 285 Diesel Fuel Injection

- TSTG 115 Gas Engine Reconditioning
- TSTG 135 Electrical Component Repair
- TSTG 140 Job Shop
- TSTG 170 Practical Applications
- TSTG 175 Hydraulic Brake Service
- TSTG 195 Climate Control Service
- TSTG 240 Advanced Job Shop
- TSTG 270 Advanced Practical Applications

Students seeking an Associate of Applied Science degree must obtain a minimum of 2.00 ("C") in each course entitled TSTC, TSTG, TSTD.

Additional expenses: Students entering the program may be required to purchase or have hand tools and appropriate personal clothing and safety gear with a total cost of approximately \$1,375.00. This does not include the cost of required textbooks. The above costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry standard of Z-87 with side shields.

See a faculty advisor for a program sheet detailing exact program requirements.



## CENTER FOR TEACHER EDUCATION (LICENSURE)

The Center for Teacher Education offers licensure programs in Elementary, Secondary, and K-12 Education. Licensure to teach in public schools in the State of Colorado requires each teacher candidate to complete a baccalaureate degree including a sequence of professional education courses that include extensive field experiences. Licensure is a separate process from the degree, although both may be pursued concurrently. Formal admission to the Center for Teacher Education is required of all students expecting to obtain a Colorado Educator License in any teaching field.

In order to complete all licensure requirements in a timely manner it is important that students contact the Center as soon as possible after enrolling at Mesa State College. The Center Office and Office of the Coordinator of Placements and Admissions is located in Albers Hall (12th and Elm Street).

### Elementary Education Licensure

Colorado Teacher Licensure and Elementary Education Endorsement (Kindergarten through Sixth Grade)

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the elementary education licensure program. Following are the components of the Mesa State College elementary licensure program:

1. Academic Major: All elementary licensure students must complete the requirements for a Bachelor of Arts in Liberal Arts (Interdisciplinary Studies).
2. Formal admission to the Center for Teacher Education.
3. Professional Education Sequence for Elementary Teacher Licensure:  
(Coursework must be taken in the prescribed sequence)

| Elementary Licensure Courses                             | Credit<br>Hours | Field<br>Hours |
|--|-----------------|----------------|
| EDUC 211: Foundations of Education                       | 2               | 20             |
| EDUC 341: Pedagogy and Assessment - Elementary           | 3               | 20             |
| EDUC 343: Teaching to Diversity                          | 3               | 20             |
| EDUC 441: Methods of Teaching Language and Literacy      | 6               | } 180          |
| EDUC 451: Methods of Teaching Mathematics                | 3               |                |
| EDUC 461: Methods of Teaching Science and Social Studies | 3               |                |
| EDUC 499C: Teaching Internship and Colloquia             | 12              |                |
| Total Hours Required                                     | 32              | 600<br>840     |

### Associate of Arts: Early Childhood Education Emphasis

Students seeking an A.A. with an Early Childhood Education emphasis may earn Childcare Center Group Leader and Director Qualification concurrently. Students earning this A.A. may seek employment as paraprofessionals in school districts, classroom teachers for Head Start, or may own or work in a licensed childcare center. For additional information and course requirements refer to the Early Childhood Education section in the Programs of Study section of this catalog.

### Secondary Education Licensure

(Colorado Teacher Licensure and Secondary Education Endorsement, Grades 7 through 12).

Students should meet with a Center for Teacher Education advisor as soon as possible in order to obtain information specific to the secondary education licensure program. Following are the components of the Mesa State College secondary licensure program:

1. Academic Major: All secondary licensure students must complete the requirements for a Bachelor of Arts or Science in one of the following academic disciplines: English, History (Social Science), Mathematics, Science (Biology), Science (Environmental Science), Science (Geology), Spanish
2. Formal Admission to the Center for Teacher Education.
3. Professional Education Sequence for Secondary Teacher Licensure:  
(Coursework must be taken in the prescribed sequence)

| Secondary Licensure Courses                                      | Credit<br>Hours | Field<br>Hours |
|--|-----------------|----------------|
| EDUC 211: Foundations of Education                               | 2               | 20             |
| EDUC 342: Pedagogy and Assessment - Secondary                    | 3               | 20             |
| EDUC 343: Teaching to Diversity                                  | 3               | 20             |
| EDUC 442: Integrating Literacy Across the Curriculum - Secondary | 5               | 60             |
| EDUC 497 Secondary Methods Core Course                           | 3               | 80             |
| EDUC 497a-e Methods of Teaching Secondary Discipline             | 1               |                |
| EDUC 499G: Teaching Internship and Colloquia                     | <u>12</u>       | <u>600</u>     |
| Total Hours Required   | 29              | 800            |

### K-12 Education Licensure

(Colorado Teacher Licensure and K-12 Endorsement, Kindergarten through 12th Grade). Students should meet with a Center for Teacher Education advisor as soon as

possible in order to obtain information specific to the K-12 Education licensure program. Following are the components of the Mesa State College K-12 teacher licensure program.

1. Academic Major: K-12 licensure students must complete the requirements for the Bachelor of Arts in one of the following academic disciplines:  
Art, Human Performance and Wellness, Music
2. Formal admission to the Center for Teacher Education.
3. Professional Education Sequence for K-12 Teacher Licensure:\*\*  
(Coursework must be taken in the prescribed sequence)

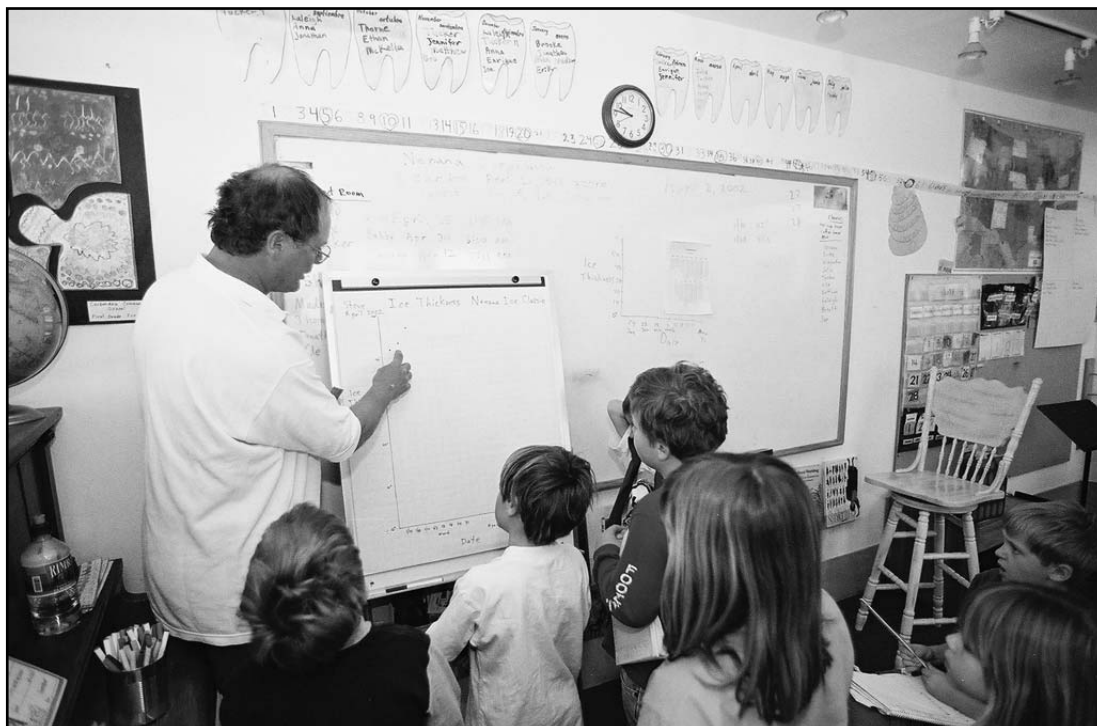
| K-12 Licensure Courses                                    | Credit | Field |
|---|--------|-------|
|   | Hours  | Hours |
| EDUC 211: Foundations of Education                        | 2      | 20    |
| EDUC 342: Pedagogy and Assessment - Secondary             | 3      | 20    |
| EDUC 343: Teaching to Diversity                           | 3      | 20    |
| Content Area Methods Courses                              | Varies | 140   |
| EDUC 499d: Teaching Internship and Colloquia - Elementary | 6      | 300   |
| EDUC 499h: Teaching Internship and Colloquia - Secondary  | 6      | 300   |
| Total Hours Required                                      | Varies | 800   |

\*\*Students seeking licensure in Art must take EDUC 442 (5 cr. hr. and 60 field hours) in addition to the above sequence.

**Post-Baccalaureate Licensure Options**

Conventional (Resident) Post-Baccalaureate Licensure (PBL). Students holding a Bachelor’s degree may apply for elementary, secondary (English, History/Social Science, Mathematics, Science/three options) or K-12 (Art, Human Performance and Wellness, and Music) licensure through the Center for Teacher Education. Depending on the student’s undergraduate degree, leveling courses may be required. The Education program sequence may be completed within three semesters, including the final semester of student teaching; students with leveling courses may need additional semesters to complete all licensure requirements. Please see a Center advisor for further information, and for an evaluation of transcripts pertinent to the licensure path desired.

Intensive (Cohort) Post-Baccalaureate Licensure (PBL). This program is available for elementary licensure only, and may be delivered to students anywhere in the 14-county region served by Mesa State College. Some students may have leveling courses to complete prior to their admission into the Intensive PBL program. The intensive cohort begins each year in June and runs for 12 months. Students begin with hybrid face-to-face and on-line courses during the summer. Fall and spring semesters are spent on-site at an elementary school in the region; during this academic year, students also participate in coursework, seminars and colloquia on-line and at the college. Please see an intensive PBL advisor for an evaluation of transcripts for elementary licensure.



## COLLEGE-WIDE ACADEMIC OFFERINGS

### Academic Honors Program

#### Contact Information

Aparna Palmer, Director of Honors Program, Wubben 265,  
(970) 248-1984

#### Program Description

As a member of the National Collegiate Honors Council, Mesa State's honors program offers promising and highly-motivated students opportunities for enhanced intellectual stimulation and increased personal scholarship. Students achieve the program's goal by contributing to their own learning at a level beyond what is normally required by most college courses.

The Academic Honors Program is open to any currently-enrolled Mesa State student with a grade point average of 3.00 or above. Transfer students with a gpa of 3.00 or above from their previous educational institutions also are invited to apply to the program.

To be considered for admission, students must submit a letter of application to the program director, describing how they will benefit from participation in the program as well as the special qualities they will bring to it. Additionally, two letters of recommendation must be sent to the director; one letter of recommendation must be from a teacher while the other may come either from a peer or from another teacher. Exceptions to these guidelines for admission may be made on a case-by-case basis by the program director. Once accepted into the program, students are required to take a minimum of one honors course per school year and maintain a gpa of 3.00 or above to continue in the program.

There are two ways to participate in the Academic Honors Program. Students can choose to take 18 credits of honors program courses or to write an honors thesis. Honors students may also choose to pursue one or both avenues. Honors courses provide challenging curricula, as they are small in size to facilitate active learning. They prepare students for the climate of postgraduate or professional schools, and they take advantage of the special interests and expertise of faculty members. Lower-division honors courses often fulfill general education requirements while upper-division honors courses are often interdisciplinary and open to all majors.

An honors thesis emphasizes independent thought and creativity and encourages mastery of research methods. It prepares students for the rigors of postgraduate or professional study and is completed under the supervision of faculty advisors. Completed theses are catalogued in the Mesa State College Tomlinson Library Special Collections.

In addition to being part of a community of like-minded learners and having the opportunity to participate in extracurricular activities, honors students have access to the honors house and receive priority registration for classes each semester. Because honors courses are typically small in size, they allow for closer interaction between students and professors. The "Honors" course designation on a student's transcript signifies that the course is among the college's more challenging courses.

Students who earn an average of "B" or higher in 18 hours of honors program coursework (six of which must be from upper-division courses) are recognized at graduation and on their transcripts for achieving Academic Honors. Students who produce an honors thesis are also cited at graduation and on their transcripts for achieving Academic Honors. All program graduates earn medals to wear at graduation.

### Cooperative Education

According to the National Commission for Cooperative Education, "Cooperative education is a working partnership in which an educational institution joins with an employer in a structured relationship. The basic purpose is that of providing a means whereby a student can combine study at the institution with a work experience which is under the supervision of the employer in order to fulfill the total requirements of a particular educational program".

Cooperative education is a three-way partnership involving the student, the employer, and the college. There is a great deal of difference between cooperative education and simply holding a job. Cooperative education is based on learning objectives which are related to the student's academic discipline and are established in cooperation with the student, the employer, the faculty advisor, and others at Mesa State College.

Typically, cooperative education is open to junior and senior students. Interested students should consult with their faculty advisor and academic department head or director. There are limits on the amount of credit which will apply towards a degree. Undergraduate students see Non-Traditional Credit section in this catalog. Graduate students, see Graduate Policies and Procedures section of this catalog.

### Freshman Year Initiative Program

Mesa State College offers first-year freshmen an opportunity to participate in a program designed specifically to enhance their first-year experience and ease the transition from high school to college. This program, the Freshman Year Initiative

(F. Y. I.) is offered to new freshmen prior to the start of each fall semester. The College's academic success course, SUPP 101, Introduction to Higher Education, is the primary focus of the F. Y. I. Program. SUPP 101 is a two-credit elective course designed to introduce students to the resources of the College and to enhance their study skills in order to be better prepared for the expectations of college work. SUPP 101 is also offered during the fall and spring semesters.

### Independent Study

Independent study permits the motivated student an opportunity to expand his or her body of knowledge beyond the scope of the standard curriculum. It endeavors to foster qualities of self-initiative, organizational skills, self-discipline and independent thinking. It is expected that the student will engage in intensive study and research of the topic.

Independent study satisfies neither general education requirements nor specific course requirements. Independent study hours may be taken as elective hours only. Independent study is available only to students at the junior and senior levels except in certain certificate and A.A.S. programs and only in those disciplines listed in the *Course Descriptions* section of this catalog.

To be eligible for independent study, a student must have a minimum of eight semester credit hours in the discipline of the independent study area, as well as a minimum GPA of 2.75 within that discipline area. The work is to be completed within one semester from the initiation date and is limited to a total of six or fewer semester credit hours taken at Mesa State College. The department head or director of the academic department issuing credit must approve any exceptions.

A written contract is to be initiated by the student desiring independent study in consultation with a supervising instructor. The contract must include justification, description, monitoring, and evaluating procedures. Upon approval by the instructor and department head, the student submits the signed, completed contract to the Office of the Registrar to register for the independent study course no later than the last day to add a full semester course.

Further restrictions apply in some disciplines. One example is the requirement that an application for independent study be completed in advance - in some cases six weeks prior to the end of the semester preceding the one in which the student wishes to take the independent study. Students wishing to take an independent study should check with the appropriate instructor and/or department head or director well in advance.

With permission of the instructor, students may register for regular classes but do the work independently, or on their

own. This is not the same as "Independent Study". Students who have made prior arrangement with the instructor will still register for the regular course, and not for Independent Study.

### Teacher Education

The Center for Teacher Education offers licensure programs in elementary, secondary, and K-12 education. Licensure to teach in public schools in the State of Colorado requires each teacher candidate to complete a baccalaureate degree including a sequence of professional education courses that include extensive field experiences. Licensure is a separate process from the degree, although both may be pursued concurrently. Formal admission to the Center for Teacher Education is required of all students expecting to obtain a Colorado Educator License in any teaching field. Please see section in this catalog on the Center for Teacher Education.

In order to complete all licensure requirements in a timely manner it is important that students contact the Center as soon as possible after enrolling at Mesa State College.

### Topics Courses

Topics courses are offered from time to time and contain material of special interest within a specific discipline not considered elsewhere in the curriculum. Prerequisites vary with course material, and enrollment requires consent of the instructor.

### Undergraduate Preparatory Courses

Preparatory courses are available in several subjects at Mesa State College. Numbers of such courses are below the 100 level (e.g., ENG 090, Basic Writing; MATH 090, Introductory Algebra and MATH 091, Intermediate Algebra; SUPP 090, College Preparatory Reading). These courses are designed for students needing to strengthen their backgrounds before entering college level classes. All courses numbered 001-099 are preparatory in nature, not intended for transfer purposes, and will not usually fulfill degree requirements. Students are encouraged to consult with their advisors about the need to register into these classes.

Students who have passed any ENGL class numbered 100 or above will not be permitted to register for credit in any ENGL class numbered below 100. Students who have passed any MATH class numbered 100 or above will not be permitted to register for credit in any MATH class numbered below 100.



# GRADUATE PROGRAMS

## General Admissions Policies and Procedures

### Admission Criteria

The Graduate Council, comprised of representatives from the faculty, sets minimum standards for admission to graduate studies at MSC. Faculty in each degree program establish admission standards for the specific degree programs, which often exceed the minimum standards. Applicants should consult program brochures, departmental offices, or faculty in the degree program(s) of interest for any additional admission requirements. Each academic department that sponsors an on-campus and/or off-campus graduate program shall utilize the same criteria for admission to the program.

Students wishing to take graduate courses not associated with a graduate program must still gain admission to MSC as a non-degree seeking graduate student. Each applicant must possess a baccalaureate degree from an accredited college or university, or equivalent certification, and have an undergraduate grade point average (GPA) of 2.50. Faculty can make recommendations for admission of non-degree seeking students who do not meet the criteria to the Associate Vice President for Academic Affairs.

An individual without a baccalaureate degree may be admitted to a master's degree program only if he or she is admitted to a combined program at MSC, such as the BS/M.B.A. program.

If a student is terminated from a degree program because of a low GPA or a failure to pass the retake of a comprehensive examination, he or she may apply to another degree program.

### Admission Procedures

To begin graduate courses at MSC, a student is expected to possess a baccalaureate degree from an accredited institution, have a grade point average (GPA) of 3.00 on the most recent 60 semester hours, and must submit the following items to the Office of Admission:

1. A completed application for admission to graduate programs of MSC and a \$50 application fee. The fee is non-refundable and is not applicable toward tuition. An application form may be obtained by writing the MSC Office of Admissions or by telephoning (970) 248-1875, or from the website: [www.mesastate.edu](http://www.mesastate.edu)
2. Official transcripts of all college and university work sent directly to the Office of Admission by each institution attended. Transcripts received directly from students cannot be accepted except for advisement purposes. The transcripts of students who previously attended MSC shall be obtained from the Office of the Registrar and shall not require a student request.

3. Students must have scores sent from either the Educational Testing Services for the GMAT or for the Graduate Record Examination (GRE), or from the Psychological Corporation for the Miller Analogies Test (MAT). See degree program for required examination.
4. Students whose native language is not English must submit the score from an English language proficiency test (Test of English as a Foreign Language/TOEFL). A minimum score of 550 is required.

Academic departments offering graduate programs may recommend admission based upon supplemental/alternate criteria that have been established by the major department and approved by the Graduate Council. If someone is recommended for admission who does not meet the graduate program standards, a rationale must be provided stating the factors which were considered in recommending the student: GPA in the discipline; maturity; letters of recommendation; samples of their work; GMAT, MAT or GRE scores; or other compelling factors. The Associate Vice President for Academic Affairs shall personally review all recommendations for admission below the standard.

### Application and Admission Deadlines

Students should check with individual programs regarding specific application and admission deadlines.

### Admission Expiration

Admission to any graduate program shall remain valid for one academic year following the first day of the applicant's proposed semester of enrollment. If a student does not begin course-work during that year, the student shall be required to submit a new application with the appropriate processing fee and satisfy all admission requirements.

### Conditional Admission

Conditional admission refers to applicants admitted pending the receipt of application requirements specified by either MSC and/or the major department. No student shall be permitted to register for an additional semester or receive financial aid unless the specified requirements are met during the first semester of the student's program.

### Enrollment Prior to Admission

Students who have applied for admission to a graduate program at MSC are not permitted to enroll for more than nine credit hours in that graduate program as a non-degree seeking student. A hold shall be placed on the student's registration, and the student cannot continue to enroll until an admission decision has been reached. Thus, a student's application must be complete, and the program faculty must recommend either a regular admission or must deny

admission by the end of the first semester, or nine semester hours, whichever is later.

### Academic Advisor

Each student shall be assigned an academic advisor upon acceptance into a graduate program by the appropriate department. The chief responsibility of the academic advisor is the planning, filing, and overseeing of the student's Degree Plan. The academic advisor also is responsible for assisting students with questions regarding their academic programs such as expectations for comprehensive examinations, theses, and/or internships, as specified by MSC, as well as professional advising and guidance for academic and professional endeavors. Any advisor-approved deviations from published program requirements or Degree Plans must be communicated to the Associate Vice President for Academic Affairs, in writing, by the student in conjunction with the academic advisor.

Note: The importance of the academic advisor cannot be overstated. Advisement includes all aspects of students' present and future academic and professional planning. It is often the academic advisor who is able to help students conceptualize their academic program within the context of their own professional goals and aspirations.

### Degree Plan

After acceptance into a graduate program, each student shall meet with his or her academic advisor and determine a Degree Plan that, when completed, shall lead to the attainment of the graduate degree. The Degree Plan shall be constructed before the student completes twelve credit hours of coursework following the guidelines of MSC, the department. The respective Degree Plan shall list all courses, including those needed for any remediation and/or weaknesses deemed by the academic advisor, internships, thesis, and research requirements necessary to complete the specific degree. The Degree Plan shall have the signature of the student, the academic advisor, the department head, and the Associate Vice President for Academic Affairs indicating approval and be filed with the Office of Academic Affairs. Upon completion of the Degree Plan, and upon the recommendation of the Faculty and approval of the Board of Trustees, the student shall be awarded the respective graduate degree.

Note: An addendum can be submitted to the Degree Plan provided the signatures of the student, the academic advisor, the department head, and the Associate Vice President for Academic Affairs are secured approving the changes.

### English Competency: Spoken and Written

A student is expected to have sufficient competency in English usage and speech skills that enable the student to progress satisfactorily in his or her program of study. Consequently, a student may be required to enroll in English and/or speech courses for remediation.

### Transfer Credit

Students can transfer up to nine credit hours from another accredited institution into their Degree Plan for a graduate degree provided they meet the General Transfer Policies of MSC and are approved by the academic advisor, the department head, and the Associate Vice President for Academic Affairs.

- Transfer work is not used in the calculation of the graduate GPA.
- Transfer credit shall not be accepted if the work was used to obtain a degree or is included as part of another degree at any institution.
- Transfer work must be approved by the department and must be "A" or "B" work.
- Transfer credit cannot be used to meet any residency requirement.
- Transfer credit cannot be used to make up "D," "F," or "U" grades received in required courses.
- Only courses graded by "letter" grades are transferable. Courses graded "S/U" or "P/F" are not transferable.
- All program requirements, including transfer work, must be completed within the time limits of the degree program. (See the section on *Program Time Limits*)
- Transfer courses must be numbered as graduate level according to the course numbering system at the originating institution.
- Transfer courses must be from accredited institutions of higher education that offer equivalent level degrees.

Students who wish to transfer credit must provide The Office of the Registrar with complete documentation showing the course(s) to be transferred. The student must then present the complete transcript to the program advisor for approval or disapproval. Any transfer credits must be included on the Degree Plan. Courses requested for transfer must meet all criteria for credit transfer (see general transfer policies) to be approved by the department.

### Course Level Requirements

Graduate courses are numbered 500 and above and are used to satisfy the requirements of graduate programs. Master's degree programs must have a minimum of 30 semester hours of courses numbered at 500 and above. Programs may require additional hours, some of which may include 400-level courses, included on the degree plan.

Note: Upon prior written permission of the instructor, the academic advisor, and the department, a currently enrolled undergraduate student may take 500-level courses.

### Dual-listed Courses

Upon approval by the Graduate Council, courses numbered 400-599 may be dual-listed allowing undergraduate and graduate students to enroll simultaneously. All dual-listed courses may be offered independently at either the graduate or undergraduate level.

Note: At least 70 percent of a student's master's degree program must be in courses that are at the 500 level and not dual listed.

### Grades

Grades of "A," "B," "C," "D," and "F" are used and are computed in the GPA. Other marks used are "I," incomplete; "IP," in progress; "W," withdrawn; "NC," no credit; "P," passing. At the discretion of programs, "Pass/Fail" (P/F) grades may be allowed for research, internship, practicum, and thesis courses. "I," "IP," "W," "NC," and "P" grades are not counted in determining the GPA. Courses for which "D," "F," "I," "IP," "W," or "NC" grades are awarded shall not count in graduate degree programs and shall not satisfy program deficiency requirements.

Incomplete ("I") grades are temporary grades given to a student only in an emergency case and at the discretion of the instructor. In Progress ("IP") grades are temporary grades given to a student in the case of a course which, because of its nature, cannot be completed by the end of the semester of enrollment.

At the end of the semester following the one in which an "I" is given, the "I" becomes the grade that is submitted by the instructor to the Office of the Registrar. If the instructor does not submit a grade by the deadline for that semester, the grade becomes an "F." An "I" grade given spring semester becomes a permanent grade at the end of the following fall term.

At the end of two semesters following the one in which the "IP" grade is given, the grade that is submitted by the instructor to the Office of the Registrar replaces the "IP." If the instructor does not submit a grade by the deadline for that semester, the grade becomes an "F." An "IP" grade given spring semester becomes a permanent grade at the end of the following spring semester.

Extension of the time to complete work may be made in exceptional circumstances at the discretion of the instructor. A student with an "I" or "IP" grade, however, may not change the "I" or "IP" by enrolling in the same course another semester.

The work to amend an "I" with an earned grade must be completed and a Change of Grade Form submitted to the Office of the Registrar by the instructor on the last day of the following semester. If the student does not re-enroll, this must occur within one calendar year of the grade's assignment. If the work for which the incomplete grade was given is not completed within the time limitations, the grade shall be recorded on the academic record as "F."

Grades can be changed, using the Special Grade Report, within the first two weeks of the semester following the receipt of the original grade by the Registrar's Office.

However, students wishing to appeal an assigned grade must follow the academic appeals procedure and must initiate the appeals process within the semester following receipt of the contested grade.

An "IP" shall be recorded for the number of hours in a Master's Thesis when a student has not completed the work by the end of the semester. The "IP" shall be replaced by a "P" or "F," or letter grade as designated by the program.

### GPA Requirement

To remain in good graduate standing, a graduate student must maintain a GPA of 3.00 or better. If the cumulative graduate GPA falls below 3.00, a graduate student shall be placed on probation. Students have one semester to show progress toward good standing. Probationary students with 12 or more earned semester hours of graduate work shall be suspended whenever progress toward good standing is not demonstrated.

A graduate student shall be suspended whenever the graduate cumulative GPA falls below 2.50. A student may appeal suspension by submitting a written petition to his or her advisor, then to the student's graduate committee. This petition must provide justification for continued registration.

### Student Termination

A student's degree program may be terminated for one or more of the following reasons:

- Based on an overall evaluation of a student's progress, the major department recommends that the student be suspended or dismissed from the program.
- The student fails to maintain the cumulative 3.0 GPA standard.
- The student fails the retake of the written and/or oral comprehensive examination or its approved equivalent.
- The student submits an unsatisfactory thesis.
- The time limit established for the degree program expires before the degree requirements are completed.

### Program Time Limits

The maximum time allowed for the completion of the master's degree is six calendar years beginning with the first semester of enrollment after admission has been granted. The student may request an extension of time by written request to the student's advisor, then to the student's graduate committee.

### Thesis

A thesis may be a requirement for a graduate program. If so, a student must obtain a faculty member to work with him or her on the topic of study, research design, and quantitative methods as well as establish a formal thesis committee made up of at least two additional members approved by the academic advisor and the Associate Vice President for Academic Affairs.

A student should prepare his or her thesis proposal in collaboration with the faculty supervisor and committee members. A proposal hearing must be conducted with the student's thesis committee. The student must secure unanimous written approval for the project by collecting the signatures of each committee member on a signature page and then submitting it to the Associate Vice President for Academic Affairs.

If the student fails the thesis defense by not securing each committee member's signature, the student may file a grievance with the Associate Vice President for Academic Affairs. The Associate Vice President for Academic Affairs shall contact the faculty member(s) who did not sign the thesis and request a written statement as to why approval was not granted. The Associate Vice President for Academic Affairs shall appoint a three-member review committee made up of tenured, Mesa State College faculty to assess the objection(s) of the dissenting committee member(s). If the review committee determines that the objection(s) do(es) not justify rejection of the thesis, the chairman of the review committee shall sign the thesis in place of the dissenting committee member(s).

### Written Comprehensive Examinations

Each master's degree student must pass a written comprehensive examination or otherwise show competency in the discipline by successfully completing a department specified equivalent that has been approved by the Graduate Council. The major department is responsible for determining the student's eligibility for taking the examination as well as scheduling the time, date, and place of the examination. This examination or its approved equivalent may not be taken until the student has:

- been granted regular admission to the program;
- completed departmentally specified course requirements;
- maintained a GPA of at least 3.0;
- received approval from the program advisor.

The student shall apply in the academic department for the written comprehensive examination. The program advisor must be consulted for information regarding examination format, procedures, time, date, and place.

**Note:** If the student leaves the examination session and does not return, the examination shall be considered taken and the exam shall be evaluated accordingly and reported to the Associate Vice President for Academic Affairs.

Once the examination has been evaluated, the program advisor must return the signed report form to the Associate Vice President for Academic Affairs indicating a pass or failure of the examination. This must be done on or before the published deadline to submit the results of the written comprehensive examination for that semester.

A retake may not be scheduled during the same semester that the original examination was completed. Failure of the retake of the examination or its equivalent shall result in the termination of the student's degree program.

Written comprehensive examinations are maintained in the departmental office for a period of 12 calendar months. These examinations are to be confidential and only available to the student who completed an exam and department faculty to address potential appeals and/or questions of administration and grading procedures. Students may request to review their comprehensive examination, but may not be allowed access to written responses of other students. Past comprehensive examination responses with identification removed can be used by program faculty as models for instructional purposes.

### Plagiarism

The following is the approved definition of plagiarism:

Plagiarism is the act of appropriating the written, artistic, or musical composition of another, or portions thereof; or the ideas, language, or symbols of same and passing them off as the product of one's own mind. Plagiarism includes not only the exact duplication of another's work but also the lifting of a substantial or essential portion thereof.

Regarding written work in particular, direct quotations, statements which are a result of paraphrasing or summarizing the work of another, and other information which is not considered common knowledge must be cited or acknowledged, usually in the form of a footnote.

As long as a student adequately acknowledges his or her sources and as long as there is no reason to believe that the student has attempted to pose as the originator, the student shall not be charged with plagiarism even though the form of the acknowledgement may be unacceptable. However, students should be aware that most professors require certain forms of acknowledgment and some may evaluate a project on the basis of form.

### Graduation Checklist

All graduate students must apply for graduation no later than February 15 for Fall graduates and September 15 for Spring graduates. The student has the responsibility for completing an Intent to Graduate form with the Office of the Registrar.

If the student does not complete all requirements for the degree and, therefore, does not graduate at the end of the proposed semester, the application shall be placed in the deferred file. The student must give written notice to the Office of the Registrar when he or she wishes to appear again on the tentative list of graduates.

Graduation requirements are checked in accordance with one specific MSC catalog. The catalog used to meet graduation requirements is normally the one published for the academic year during which the student first enrolls after admission to MSC. The student must specify the catalog under which he or she wishes to be evaluated and must meet all requirements in that catalog. The student may select any subsequent catalog up to and including the current one, provided the student was in attendance at MSC during that academic year. However, a student may not choose to meet some requirements in one catalog and other requirements in another catalog.

MSC reserves the right to modify or change catalog provisions from time to time in order to fulfill the MSC Role and Mission or to accommodate circumstances beyond its control. Any such changes or modifications may be implemented as applicable to all or some students without prior notices, without obligation, and unless specified otherwise, are effective when made. MSC reserves the right to terminate or modify program requirements, content, and the sequence of program offerings from time to time for educational or financial reasons that it deems sufficient to warrant such actions.

### **Research Activities**

Research is an important component of graduate studies. Specific research requirements and activities are defined by each degree program specifically.

### **Sponsored Programs**

The Office of Sponsored Programs mission is to provide support to faculty and other College personnel in obtaining and administering external funds for research and other scholarly activities. Research at Mesa State includes explorations that lead to the discovery and dissemination of new knowledge, the development of new applications of existing knowledge, the development of new paradigms for teaching and learning, and/or the related creative activities in the fine arts.

The Office of Sponsored Programs is responsible for protecting college interests through the review of sponsored project proposals to non-college sources, contract and grant award review and negotiation, administration of award funds, and policy and procedure initiation and implementation.

### **Human Subjects and Animal Research**

All research conducted by faculty, staff, or students that involves human subjects must be reviewed and approved by the Human Subjects Committee (also known as the Institutional Review Board or IRB). All research conducted by faculty, staff, or students that involves animals must be reviewed and approved by the Institutional Animal Care and Use Committee (IACUC). Graduate student research to fulfill course, thesis, or dissertation requirements is also subject to this regulation.

The Office of Sponsored Programs encourages all students to meet with their advisor if they intend to do research with humans or animals. Human subject research can include something as simple as an interview or survey. Failure to obtain approval by the IRB or IACUC before beginning a research project can be grounds for rejecting a thesis or dissertation and constitutes a serious breach of academic research ethics and federal law.

The policy, procedure, and forms required for human subject or animal research are available on the Sponsored Programs web site at: <http://www.mesastate.edu/faculty/sponsored/index.htm>. In addition, students may contact the Office of Sponsored Programs.

### **Research Misconduct**

In accordance with federal regulations, the college has in place a Misconduct in Research Policy. This policy applies to the conduct of research and/or related activities, whether the research is funded or not; regardless of the field of study; presentation and/or publication of results; process of applying for funds; expenditure of project funds; and fiscal reporting on the use of project funds. This policy applies to all faculty, students, administrators, and staff on all of Mesa State campuses.

As defined in the Mesa State College Misconduct in Research Policy, research misconduct includes fabrication, falsification, or plagiarism in proposing or performing research, abuse of confidentiality or other practices that seriously deviate from those commonly accepted within the academic community for proposing, conducting, and reporting on research, and plagiarism or abuse of confidentiality in reviewing proposals for a funding agency. The definition of research misconduct does not include honest error or differences of opinion or interpretations or judgments of data. The definition contained in this policy is not intended to override or contradict provisions of other regulations or policies, in particular those policies governing human research subjects and animal welfare. A finding of substantive violation of specific policies in these areas will also be considered misconduct under this policy. A copy of this policy may be found at <http://www.mesastate.edu/faculty/sponsored/index.htm>.

### **Master of Business Administration**

Mesa State College began offering the first of its graduate level programs-the master of business administration (M.B.A.)-in 1997-98. The M.B.A. program at Mesa State is administered by the Department of Business. The department is guided on academic policy matters by the Graduate Council, which receives and acts on proposals submitted by the faculty immediately responsible for the program.

The Mesa State College M.B.A. is a challenging program designed to prepare graduates for the changing business world. The degree is awarded after successful completion of 36 semester hours of rigorous study. The program is designed

to provide the student with a broad background in business while allowing the student to focus on a specified area of study, if desired. To this end, students acquire knowledge of management operations, an appreciation of the interrelationships involved, an understanding of the economic, political and social environment in which businesses function, and behavioral skills that are essential in the manager's role in the implementation of business decisions. The M.B.A. program endeavors to provide an atmosphere conducive to the development of each student's ability to think in a creative manner. The program makes extensive use of lectures, seminars, group projects, case studies and independent research.

The Mesa State M.B.A. has two basic components: a 24 hour core and a 12 hour general elective requirement. The program is open to all baccalaureate holding applicants who can demonstrate through academic or experiential preparation an appropriate background in the core requirements that include work in management, finance, marketing, law and ethics, organizational theory and behavior, and accounting regardless of the undergraduate field of study. Students without this background may be required to complete leveling requirements.

Electives include such courses as global business, entrepreneurship, managerial economics and management information systems. Electives also provide the student with the opportunity to develop and present an original research project or serve an internship.

#### **Admission to the M.B.A. Program**

Applicants must normally:

- Possess an undergraduate degree from a regionally accredited college or university
- Have earned a GPA of 3.00 or better from the most recent 60 credit hours of course work earned toward a bachelor degree
- Have a cumulative 3.00 GPA or better for prior graduate work
- Take the GMAT and the accompanying essay and have the results sent to the Office of Admission. A GMAT score of 450 or higher is required. The GRE or MAT score will be considered as an alternative to the GMAT.
- Provide two letters of professional and/or academic recommendation
- Interview, if required, with members of the Graduate Admission Committee
- International students must also take the TOEFL and achieve a score of 550 or higher

Candidates meeting ALL of the above requirements may be admitted under full status.

Candidates not meeting all of the above requirements may be admitted under conditional status.

#### **M.B.A. for Those Without a Business Degree**

While the M.B.A. program is designed for the student having earned a bachelor's degree in a business related field, the opportunity for study is available for the non-business degree holder. For these students, a series of 27 hours of leveling courses have been designed to address any deficiency. Through careful selection of undergraduate courses, students may be admitted to the M.B.A. program without needing any of the leveling courses.

#### **Internship/Management Practicum/Thesis**

Each graduate program requires work experience or a directed research project. M.B.A. students may select an internship or a management practicum. An internship is a directed work experience within an institution that the student is *not* currently employed. A management practicum is a directed work experience within an institution that the student is currently employed.

For the internship experience, each graduate student will, in conjunction with his or her advisor, find and select a business position and develop objectives to be accomplished on the job location. These objectives must be submitted in an internship plan that will require the written approval of the advisor, the M.B.A. director, and the department head. The student will make a presentation to the faculty and guests on work completed for the internship.

For the management practicum, the student must complete a management project. The project will be developed by the student working in conjunction with the employer, and must be approved by the course instructor. The project is initiated, developed, conducted, completed and reported by the student and must relate to as many courses completed in the M.B.A. program as possible. The expected impact of the student's recommendations must be beyond the boundaries of a single functional area.

BUGB 595 is the three-hour course for both the internship and practicum. A minimum of 150 hours of work related experience is required for this course. Completion of, or simultaneous enrollment in, all M.B.A. core courses is required prior to the experience.

A thesis track may substitute for the internship/ practicum. Students who are permitted must complete, under faculty supervision, an original research paper and prepare an oral presentation of the thesis. The student must secure a faculty member to work with him/her on the topic of study, research design, and quantitative methods. Approval from the student's graduate committee, program director, and academic department head are required.

#### **Program of Study**

Required Courses

|          |                                  |
|----------|----------------------------------|
| ACCT 500 | Managerial Accounting            |
| BUGB 500 | Advanced Business Law and Ethics |

|          |                                       |
|----------|---------------------------------------|
| FINA 500 | Financial Strategy                    |
| MANG 500 | Advanced Management Theory            |
| MANG 501 | Productions and Operations Management |
| MANG 510 | Organizational Theory and Behavior    |
| MANG 590 | Strategy and Policy                   |
| MARK 500 | Marketing Strategy                    |

## Elective Courses

|          |   |
|----------|---|
| BUGB 510 | Global Business   |
| BUGB 520 | Seminar in Current Business Topics                                    |
| BUGB 530 | Research Design   |
| BUGB 590 | Thesis (6 hours)  |
| BUGB 595 | Cooperative Education   |
| CISB 500 | Management Information Systems  |
| ECON 530 | Managerial Economics  |
| HPWA 500 | Facility and Equipment Management in Sport and Fitness                |
| HPWA 510 | Event and Program Management in Sport and Fitness                     |
| HPWA 520 | Management Policies, Principles, and Regulations in Sport and Fitness |
| MANG 520 | Human Resource Management   |
| MANG 540 | Advanced Quantitative Methods   |
| MANG 550 | Entrepreneurship  |

If the seminar topics are different, BUGB 520 may be taken for credit up to three times.

Students are required to meet with their advisor and submit information by the appropriate deadlines.

All graduate courses for the M.B.A. are listed in the Course Descriptions section of this catalog in the prefix areas of Accounting (ACCT), Business Administration (BUGB), Computer Information Systems in Business (CISB), Economics (ECON), Finance (FINA), Human Performance and Wellness (HPWA), Management (MANG), and Marketing (MARK).

## Leveling Courses

If the prospective M.B.A. student does not have an undergraduate business degree, the student must complete the following Mesa State College courses or equivalent. Equivalent courses are determined by the applicant's graduate committee.

|          |                                     |
|----------|-------------------------------------|
| ACCT 201 | Principles of Financial Accounting  |
| ACCT 202 | Principles of Managerial Accounting |
| BUGB 349 | Legal Environment of Business       |
| CISB 101 | Business Information Technology     |
| ECON 201 | Principles of Macroeconomics        |
| FINA 301 | Managerial Finance                  |
| MANG 201 | Principles of Management            |
| MARK 231 | Principles of Marketing             |
| STAT 200 | Probability and Statistics          |

**General Policies**

Up to nine credit hours may be taken in a "non-degree seeking student" status and later applied to the program requirements. Up to nine credit hours of applicable courses, with a grade of "B" or higher, may be transferred from a regionally accredited institution into the program. Additional information may be found in the Transfer Credit section above.

# COURSE DESCRIPTIONS

## ACCOUNTING (ACCT)

### **ACCT 201 Principles of Financial Accounting (3)**

A basic course that introduces the concepts of bookkeeping, generally accepted accounting principles, and financial statements. (Fall/Spring)

### **ACCT 202 Principles of Managerial Accounting (3)**

A basic course that introduces the use of accounting information in managerial decision making, control, and planning. Prerequisites: ACCT 201, CISB 101. (Fall/Spring)

### **ACCT 311 Advanced Managerial Accounting (3)**

An advanced course primarily for non-accounting majors that provides in-depth coverage on the applications of accounting information in decision-making, organization, control and planning. Prerequisites: ACCT 202, and CISB 101 or CISB 205. (Spring)

### **ACCT 321 Intermediate Accounting I (5)**

Development of a foundational understanding of Generally Accepted Accounting Principles and their application to external financial statements. Prerequisite: ACCT 201. (Fall)

### **ACCT 322 Intermediate Accounting II (4)**

Continuation of ACCT 321. Prerequisite: ACCT 321. (Spring)

### **ACCT 331 Cost Accounting (3)**

Costs and their relationship to planning, controlling, inventory valuation, and decision making. Prerequisite: ACCT 202, CISB 205. (Fall)

### **ACCT 392 Accounting Information Systems (3)**

A study of the concepts and design of the Accounting Information System with emphasis on the internal control structures, requirements, and professional standards. Prerequisites: ACCT 322; CISB 205. (Spring)

### **ACCT 393 Cooperative Education (3-12)**

Cooperative Education provides students an opportunity to put their education to practical use in the workplace under the joint supervision of an employer participating in the Cooperative Education program and a faculty member designated by the institution. (See "Cooperative Education" in this catalog).

### **ACCT 395 Independent Study (1-3)**

### **ACCT 396 Topics (1-3)**

### **ACCT 401 Governmental Accounting (3)**

Accounting principles as they apply to governmental units. Prerequisite: ACCT 322. (Fall)

### **ACCT 402 Advanced Accounting (3)**

The course provides coverage of consolidated financial statements, partnership accounting, bankruptcy, estates, trusts, and international operations. Prerequisite: ACCT 322. (Spring)

### **ACCT 411 Auditing I (3)**

This course provides coverage of the scope and purposes of the work of a certified public accountant, including study of the theory of auditing, professional ethics, legal liability of the auditor, and internal control. Prerequisites: ACCT 322, STAT 200 or 214, and senior standing. (Fall)

### **ACCT 412 Auditing II (3)**

Continuation of ACCT 411. This course provides coverage of the application of auditing theory to financial statements, including examination of the audit programs, procedures, and work papers used in each phase of an audit. Prerequisite: ACCT 411. (Spring)

### **ACCT 441 Individual Income Tax (4)**

Individual Income Tax designed for BS in accounting degree candidates. Covers the Federal Income Tax Law in-depth as it relates to individual taxpayers. Introduction to various tax reference resources that deal with the subject. Limited enrollment. Prerequisite: ACCT 322, senior standing. (Fall)

### **ACCT 442 Advanced Tax and Tax Research (5)**

Federal Income Tax Law for corporations, partnerships, estates, trusts, and gifts. In-depth experience with tax research resources, research methodologies and related projects. The student will be required to participate in the Volunteer Income Tax Assistance (VITA) program in order to acquire practical experience in communication with taxpayers and preparation of tax returns. Prerequisite: ACCT 441. (Spring)

### **ACCT 493 Cooperative Education (3-12)**

See description of ACCT 393.

### **ACCT 495 Independent Study (1-3)**

### **ACCT 496 Topics (1-3)**

### **ACCT 500 Managerial Accounting (3)**

Provides students with an understanding of management information systems which are used in the decision-making process. The class is designed with a "hands-on" approach. It will encourage student participation and interaction through the use of computer projects, case studies, and classroom discussion. Topics covered include basic cost accounting concepts and terminology, product costing and pricing, planning and controlling a business operation through budgets and variance analysis, and managerial decision-making using such techniques as cost-volume-profit analysis and variable costing. (Fall)



## ADMINISTRATION OF JUSTICE (ADJU)

---

### ADJU 201 Introduction to the Administration of Justice (3)

Philosophy, history and development of the American criminal justice system. Survey of the role of law enforcement agencies, the courts, jails, prisons, probation and parole in both juvenile and adult systems. Prerequisites: sophomore standing. (Fall)

### ADJU 296 Topics (1-3)

### ADJU 301 Justice Procedures (3)

Analysis of landmark U.S. Supreme Court cases and their impact on operating procedures of law enforcement, the courts, jails, prisons, and allied agencies. Prerequisites: ADJU 201 and junior standing, or consent of instructor. (Spring)

### ADJU 310 The Police Process (3)

Basic features of policing in the United States. Police work, police organizations, police officers, and the critical problems facing policing today are examined in social and political context. Prerequisite: ADJU 201. (Fall)

### ADJU 320 Corrections (3)

The role of corrections in the criminal justice system: history, guiding philosophies and theories, treatment approaches, custody issues, and supervision of offenders on probation and parole. Prerequisite: ADJU 201, junior standing and/or consent of instructor. (Spring)

### ADJU 395 Independent Study (1-3)

### ADJU 396 Topics (1-3)

### ADJU 420 Criminal Law (3)

Philosophy, history and current state of criminal law with emphasis on analysis and application of Colorado Statutes and the American Law Institute Model Penal Code. Prerequisite: ADJU 201, and junior standing. (Fall)

### ADJU 495 Independent Study (1-3)

### ADJU 496 Topics (1-3)

### ADJU 499 Internship (3)

Provides the student with opportunities to apply theoretical principles in a structured organizational or work environment. Student must have prior instructor and site approval at least one semester in advance of the internship. The student must complete 180 clock hours of service. Prerequisites: senior status in the Administration of Justice or Criminology concentration and consent of instructor. (Fall/Spring)

## ANTHROPOLOGY (ANTH)

---

### ✓ ANTH 201 Cultural Anthropology (3)

Basic concepts of cultural anthropology including the theoretical perspectives, social and political institutions, ceremonies, and linguistics. Cultural change and cultural destruction are also included. (Fall/Spring)

### ✓ ANTH 222 World Prehistory (3)

Basic theory and method will be described. Prehistory includes human origins, Stone Age hunters, domestication of animals, the rise of agriculture and the emergence of civilizations. (Fall)

### ANTH 296 Topics (1-3)

### ANTH 301 The North American Indian (3)

Cultural systems of the North American Indian including ideology, revitalization, political history, and contemporary conditions. Case studies of selected groups will be emphasized. Prerequisites: ANTH 201. (Spring)

### ANTH 310 Ethnographic Methods (3)

Theoretical, descriptive, and instructive aspects of qualitative social research including theoretical perspectives, field journalism, participant observation, interviewing, ethics, and research design. Students will conduct and discuss brief fieldwork in the community. Prerequisite: ANTH 201. (Spring and Alternate Fall)

### ANTH 320 The U.S. as a Foreign Culture (3)

Study of the U.S. from an outsider's perspective, understanding and intellectually building upon foreign views of the U.S. Students will learn how to objectify and analyze U.S. culture in its many forms. Prerequisites: ANTH 201. (Alternate Spring)

### ANTH 330 Religion and Culture (3)

Comparison of organized beliefs in the spiritual world and their relationship to the cultures in which they are practiced. Several theoretical perspectives will be emphasized. Prerequisite: ANTH 201. (Spring)

### ANTH 340 Ethnopsychology (3)

Study of indigenous theories about emotions and cognition and a functionalist analysis relating traditional healing methods to the social and psychological aspects of illness. Prerequisites: ANTH 201 and PSYC 150. (Fall)

### ANTH 350 Regional Study (3)

Specific geographical region will be described. History, politics, economics, ideologies, cultural traditions, and contemporary conditions will be discussed. Prerequisites: ANTH 201. (Fall on demand)

### ANTH 360 Gender and Culture (3)

Study of culturally ascribed roles based on sex, their symbolic basis, and the functionalist and conflict theory explanations for the forces giving rise to them. Prerequisites: ANTH 201. (Alternate Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**ANTH 370 Applied Anthropology (3)**  
Study of the application of anthropological principles in a holistic approach to technological development in other cultures. Topics include sustainable development, cultural preservation, advocacy, ethical and epistemological issues. Prerequisites: ANTH 201, 310. (Fall on Demand)

**ANTH 380 Language and Culture (3)**  
Social, psychological, and epistemological aspects of language. Critical assessment of the use of language in writing about anthropology. Prerequisites: ANTH 201. (Alternate Spring)

**ANTH 390 World Ethnicity and Nationalism (3)**  
Inquiry into the concepts of ethnicity and nationalism – how they evolved, to what purposes they have been applied, and how they have figured and continue to figure in several contexts around the world. Prerequisite: ANTH 201. (Alternate Spring)

**ANTH 395 Independent Study (1-3)**

**ANTH 396 Topics (1-3)**

**ANTH 405 Globalization and Cultural Change (3)**  
Analyses from several perspectives of the effect of global systems on cultural change, particularly in non-state cultures. It emphasizes the significance of economy, polity, and ideology in both the global system and the non-state societies. Prerequisites: ANTH 201. (Alternate Fall)

**ANTH 410 World Cultures (3)**  
Study of band, tribal, chiefdom, and state societies from a variety of theoretical perspectives, also includes the study of contemporary cultural change in non-state societies. Prerequisites: ANTH 201. (Alternate Fall)

**ANTH 495 Independent Study (1-3)**

**ANTH 496 Topics (1-3)**

## ART (ARTE)

The art department maintains and periodically displays a collection of student artwork and reserves the right to retain one piece of work from each student enrolled in a studio class.

### FOUNDATIONS

**ARTE 101 Two-Dimensional Design (3)**  
The principles of form and function in two-dimensional design with emphasis on color theory and use. Two hours of lecture and two hours of studio per week. (Fall/Spring)

**ARTE 102 Three-Dimensional Design (3)**  
The principles of form and function in three-dimensional design with emphasis on color theory and use. Two hours of lecture and two hours of studio per week. (Fall/Spring)

**ARTE 151 Basic Drawing (3)**  
Freehand drawing of figural and environmental subjects through perceptual exercises and common drawing media. Six hours of studio. (Fall/Spring)

**ARTE 190 Mixed Media (3)**  
Use of a variety of two-dimensional media, such as ink, pastels, dye, watercolor (both transparent and opaque), acrylic, and tempera, in the creative process. Prerequisite: ARTE 151. (Spring)

**ARTE 196 Topics (1-3)**

### ART HISTORY

✓ **ARTE 115 Art Appreciation (3)**  
Some of the hows, whys, and whos of painting, sculpture, and functional design in selected periods and places. This course is intended for non-art majors. Art majors should take ARTE 118 instead. (Fall/Spring)

✓ **ARTE 118 History of Art, Prehistory to Renaissance (3)**  
Survey of the development of art from Prehistory up to the emergence of the Renaissance. Course focus will be the study of major monuments to gain an understanding of the important factors that defined the artistic production of each civilization and historic period. (Fall)

**ARTE 119 History of Art, Renaissance to Present (3)**  
Survey of the development of art from the Renaissance to the late 20th century. Course focus will be the study of major monuments to gain an understand of the important factors that defined the artistic production of different historic periods. (Spring)

**ARTE 315 Nineteenth-Century Art (3)**  
Comprehensive survey of the major art movements of the nineteenth century: Neoclassicism, Romanticism, Academic Art, the invention of photography, Realism, Impressionism, Post-Impressionism, Symbolism, and Art Nouveau. Prerequisites: ARTE 118 and ARTE 119. (Fall)

**ARTE 316 Twentieth-Century Art (3)**  
Comprehensive survey of the major art movements of the twentieth century, from Cubism and Fauvism to recent developments in contemporary art. Prerequisite: ARTE 118 and 119. (Spring)

**ARTE 317 History of American Art, Colonial to Present (3)**  
Examination of art and artists of America from Colonial times up to the present with attention to the role of the artist and the visual arts in American social experiment. (Alternate Fall)

**ARTE 318 Developments in Contemporary Art (3)**  
Examination of art produced within the past 40 years with attention to the plurality of successful styles and subjects pursued by artists, the increasingly important role of the art critic and the contemporary art museum in interpreting trends,

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

the impact of the commercial art market on the production and dissemination of contemporary art, and various experimental art forms developed by artists to counteract the influence of critics, institutions and commercial interests. Prerequisites: ARTE 118 and ARTE 119. (Alternate Spring)

**ARTE 319 Art of the American West (3)**  
Examination of the artist's encounter with the West as both real and imagined experience from the works of expeditionary artists of the early 19th century to recent large scale "earthworks" that transform the Western landscape. Emphasis on the works of the major 19th century protagonists of the heroic Western image as well as the important role of Santa Fe and other Western locations in the development of a Western art tradition. Prerequisites: ARTE 118 and ARTE 119. (Alternate Fall)

## ART EDUCATION

**ARTE 410 Elementary Art Education Methods (3)**  
Theory, methods and materials for teaching art to children, K-6. Prerequisites: EDUC 211 and 343; EDUC 341 (Elementary/Liberal Arts Majors) or EDUC 342 (K-12 majors). (Fall/Spring)

**ARTE 410L Field/Studio Experience – Elementary Art Education Methods (1)**  
Required field and studio experience on the elementary level for K-12 art education majors. Prerequisites: EDUC 211, 342, 343; enrollment in the K-12 Art Education program; junior or senior status. (Fall/Spring)

**ARTE 412 Secondary Art Education Methods (4)**  
Theory, methods, and materials for teaching art in middle schools and senior high schools. Prerequisites: EDUC 211, 342, 343; enrollment in the K-12 Art Education program; junior or senior status. (Fall)

### ART STUDIO COURSES 200 LEVEL

These courses introduce traditional materials of the visual arts through studio experiences with lectures on theory and history of the media. One hour of lecture and four hours of studio per week.

**ARTE 221 Metalsmithing (3)**  
Prerequisite: ARTE 102 or consent of instructor.

**ARTE 231 Fibers (3)**  
Prerequisite: ARTE 101 or consent of instructor. (On demand)

**ARTE 241 Ceramics—Handbuilding (3)**  
Prerequisite: consent of instructor. (Fall/Spring)

**ARTE 242 Ceramics—Potters' Wheel (3)**  
Prerequisite: ARTE 241 or consent of instructor. (Fall/Spring)

**ARTE 271 Printmaking – Relief and Intaglio (3)**  
Prerequisite: ARTE 101, 151 or consent of instructor. (Fall)

**ARTE 272 Printmaking – Lithography (3)**  
Prerequisite: ARTE 101, 151 or consent of instructor. (Spring)

**ARTE 281 Sculpture – Modeling and Mold Making (3)**  
Prerequisite: ARTE 102 or consent of instructor. (Alternate Fall)

**ARTE 282 Sculpture – Foundry (3)**  
Prerequisite: ARTE 102 or consent of instructor. (Fall/Spring)

**ARTE 283 Sculpture – Carving and Construction (3)**  
Prerequisite: ARTE 102 or consent of instructor. (Spring)

**ARTE 284 Ceramic Sculpture (3)**  
Prerequisite: ARTE 102 or consent of instructor. (Alternate Fall)

**ARTE 291 Painting (3)**  
Prerequisites: ARTE 101, 151, or consent of instructor. (Fall/Spring)

**ARTE 292 Watercolor Painting (3)**  
Prerequisites: ARTE 101, 151, or consent of instructor. (On demand)

**ARTE 251 Figure Drawing (3)**  
Emphasis on the tradition of the human figure using contemporary concepts of composition and techniques, quality drawing tools, and surfaces. Nude models, bones, and anatomy charts as well as reproductions of the work of figurative artists are utilized. One hour of lecture and four hours of studio per week. Prerequisite: ARTE 151 or consent of instructor. (Fall/Spring)

**ARTE 296 Topics (1-3)**

### ART STUDIO COURSES 300 LEVEL

Specific media to be studied in a structured class, or a general studio including a variety of media and individually contracted work. One hour of lecture and four hours of studio per week. Prerequisites: ARTE 101, 102, 151, 118, and at least three hours of the same Processes and Media at the 200 level.

**ARTE 321 Metalsmithing (3)**  
Prerequisites: ARTE 151, 221. (On demand)

**ARTE 342 Intermediate Ceramics (3)**  
Prerequisites: ARTE 242. (Fall/Spring)

**ARTE 345 Noborigama Wood Fire Ceramics (3)**  
A comprehensive study of wood fire ceramics that includes research on the development of clays, glaze, and firing techniques for wood fire. Historical background, vocabulary, studio involvement, and firing at the kiln site required. Prerequisites: ARTE 242 and ARTE 342. (Fall)

|   |       |   |       |
|---|-------|---|-------|
| <b>ARTE 351 Drawing</b><br>Prerequisites: ARTE 101, 251. (Fall/Spring)  | (3)   | dio involvement, and firing at the kiln site required.<br>Prerequisites: ARTE 242, ARTE 342, and ARTE 345. (Fall) |       |
| <b>ARTE 371 Printmaking – Relief and Intaglio</b><br>Prerequisites: ARTE 271. (Fall)  | (3)   | <b>ARTE 451, 452 Drawing</b><br>Prerequisites: ARTE 351. (Fall)   | (3)   |
| <b>ARTE 372 Printmaking - Lithography</b><br>Prerequisites: ARTE 272. (Spring)  | (3)   | <b>ARTE 471 Printmaking – Relief and Intaglio</b><br>Prerequisites: ARTE 371. (Fall)                              | (3)   |
| <b>ARTE 381 Sculpture – Modeling and Mold Making</b><br>Prerequisites: ARTE 281. (Alternate Fall)   | (3)   | <b>ARTE 472 Printmaking – Lithography</b><br>Prerequisites: ARTE 372. (Spring)                                    | (3)   |
| <b>ARTE 382 Sculpture – Foundry</b><br>Prerequisites: ARTE 282. (Fall/Spring)   | (3)   | <b>ARTE 481 Sculpture – Modeling and Mold Making</b><br>Prerequisites: ARTE 381. (Alternate Fall)                 | (3)   |
| <b>ARTE 383 Sculpture – Carving and Construction</b><br>Prerequisites: ARTE 283. (Spring)   | (3)   | <b>ARTE 482 Sculpture – Foundry</b><br>Prerequisites: ARTE 382. (Fall/Spring)                                     | (3)   |
| <b>ARTE 384 Ceramic Sculpture</b><br>Prerequisites: ARTE 102, 241 (Alternate Fall)  | (3)   | <b>ARTE 483 Sculpture – Carving and Construction</b><br>Prerequisites: ARTE 383. (Fall/Spring)                    | (3)   |
| <b>ARTE 385 Summer Institute at Marble, Colorado</b><br>Summer symposium at Marble/Marble Carving Symposium. Carve Colorado Yule Marble from the same quarries used in the Lincoln Memorial, the Tomb of the Unknown Soldier and other projects. A fee for the summer institute is in addition to Mesa State tuition and fees. Prerequisite: ARTE 283. (Summer) | (3)   | <b>ARTE 484 Ceramic Sculpture</b><br>Prerequisite: ARTE 384 (Alternate Fall)                                      | (3)   |
| <b>ARTE 391 Painting</b><br>Prerequisites: ARTE 291. (Fall/Spring)  | (3)   | <b>ARTE 491 Painting</b><br>Prerequisites: ARTE 315 or 316, and 391. (Fall/Spring)                                | (3)   |
| <b>ARTE 392 Watercolor Painting</b><br>Prerequisite: ARTE 292. (Fall/Spring)  | (3)   | <b>ARTE 492 Watercolor Painting</b><br>Prerequisites: ARTE 315 or 316, and 392. (Fall/Spring)                     | (3)   |
| <b>ARTE 395 Independent Study</b>   | (1-3) | <b>ARTE 495 Independent Study</b>   | (1-3) |
| <b>ARTE 396 Topics</b>  | (1-3) | <b>ARTE 496 Topics</b>  | (1-3) |

**SEMINARS**

|  |     |
|--|-----|
| <b>ARTE 300 Exhibitions and Management</b><br>The business of art including art law, studio management, sales practices, presentation of artwork, conservation practices, and gallery design. One hour of lecture and two hours of laboratory per week. Prerequisite: junior or senior standing. (Spring)  | (3) |
| <b>ARTE 302 Native Arts of North America</b><br>Exploration and examination of the art of tribal peoples of North America, with special attention to the peoples' view of art and beauty as integral to life. Students will investigate the blending of oral history and art, as well as hands-on artistic techniques. Prerequisites: ARTE 115 or ARTE 118 or ANTH 201 or HIST 131 or HIST 132, or consent of instructor. (Fall) | (3) |
| <b>ARTE 494 Senior Seminar and Portfolio</b><br>Capstone course with topics related to art criticism, history, aesthetics and current art developments. Preparation of portfolios and a professional resume. Students are required to take a comprehensive assessment to be compared with the test they took in basic drawing. Prerequisite: senior standing or consent of instructor. (Fall)                                    | (3) |
| <b>ARTE 497 Senior Exhibition</b><br>All seniors pursuing a B.F.A. degree with a studio art concentration are required to participate in a senior exhibition in  | (3) |

**ART STUDIO COURSES 400 LEVEL**

Specialized studio courses intended for senior-level students, culminating in a faculty examination of each student's portfolio and an exhibition of the student's work. One hour of lecture and four hours of studio per week. Prerequisite: at least three hours in the same medium at the Intermediate Studios (300) level.

|  |     |
|--|-----|
| <b>ARTE 421 Metalsmithing</b><br>Prerequisite: ARTE 321.   | (3) |
| <b>ARTE 441 Glaze Calculation</b><br>Prerequisite: Consent of instructor. (On demand)  | (3) |
| <b>ARTE 442 Kiln Construction</b><br>Prerequisites: Consent of instructor. (Alternate Spring)  | (3) |
| <b>ARTE 443 Pottery Production</b><br>Prerequisites: ARTE 242 and 342. (Fall/Spring)   | (3) |
| <b>ARTE 445 Noborigama Wood Fire Ceramics</b><br>A comprehensive study of wood fire ceramics that includes research on the development of clays, glaze, and firing techniques for wood fire. Historical background, vocabulary, stu- | (3) |

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

the Johnson Art Gallery. They must enroll in this course during the semester in which their exhibition is presented. Prerequisites: ARTE 300 and ARTE 494.

**ARTE 499 Internship (3)**  
Placement in a gallery, art center or museum setting (excluding the Johnson Gallery). The student is expected to complete 135 clock hours. Prerequisites: ARTE 300 and ARTE 494. (Fall/Spring)

## **BIOL** (BIOL)

✓ **BIOL 101 General Human Biology (3)**  
✓ **BIOL 101L General Human Biology Laboratory (1)**  
Scientific method, ecology, pollution, drugs, reproduction, cancer, heart disease, nutrition, and selected body structure and function relationships. Labs will include required field trips. Can be taken for graduation or general education credit by biology majors who have completed no more than 10 hours in BIOL. Three lectures and one two-hour laboratory per week. (Fall/Spring)

✓ **BIOL 102 General Organismal Biology (3)**  
✓ **BIOL 102L General Organismal Biology Laboratory (1)**  
Selected body structure and function relationships, genetic engineering, animal phylum relationships, evolution, plant growth and development. Labs will include dissections and some required field trips. Can be taken for graduation or general education credit by biology majors who have completed no more than 10 hours in BIOL. Three lectures and one two-hour laboratory per week. (Spring)

✓ **BIOL 105 Attributes of Living Systems (4)**  
✓ **BIOL 105L Attributes of Living Systems Laboratory (1)**  
Cell structure and function, cell energetics and biochemistry genetics, ecology and evolution. Four lectures and one two-hour laboratory per week. High school chemistry recommended. (Fall/Spring)

**BIOL 106 Principles of Animal Biology (3)**  
**BIOL 106L Principles of Animal Biology Laboratory (2)**  
Broad morphological, physiological, and ecological features of principal phyla of animals and relationships between them. Three lectures and two two-hour laboratories per week. Prerequisite: BIOL 105 or consent of instructor. (Spring)

**BIOL 107 Principles of Plant Biology (3)**  
**BIOL 107L Principles of Plant Biology Laboratory (2)**  
Organisms traditionally assigned to the plant kingdom; bacteria, fungi, green-protists, algae, and true plants. Morphology, reproductive biology, anatomy, and phylogeny of each group. Three lectures and two two-hour laboratories per week. Prerequisite: BIOL 105 or consent of instructor. (Fall)

**BIOL 113 Outdoor Survival (3)**  
Learning skills necessary for biologists working in the field, including wilderness survival, wilderness medicine, camp-

ing/climbing skills, edible/poisonous plants, urban survival skills, and epidemiological/radiation/chemical threats. Three one-hour lectures per week. (Spring)

**BIOL 154 Technobiology (2)**  
**BIOL 154L Technobiology Laboratory (2)**  
Exploration of the electrical, chemical and biological languages of life. Students will learn to program life-like events, build robots, and approach the study of life from the point of view of synthesis instead of analysis. This course may be used for honors credit if extra criteria are met as dictated by instructor. (Alternate Fall)

**BIOL 196 Topics (1-3)**

**BIOL 203 Human Nutrition (3)**  
Introduction to the science of the effects of food on the body and the body's need for and utilization of essential nutrients. (Fall/Spring)

**BIOL 205 Health, Nutrition, and Safety (3)**  
Study of the interrelationships of physical care to ensure a positive growth environment for children. Focus areas shall include: promotion and protection of child health through studies of regulations and community resources; health education activities appropriate for early childhood educators; nutrition standards, preparation, and sanitation. (Fall)

**BIOL 209 Human Anatomy and Physiology (3)**  
**BIOL 209L Human Anatomy and Physiology Laboratory (1)**

Study of the form and function of several major systems of the human body. For students with an interest in pre-med, nursing, human health, and biology. A background in general biology is recommended. Three lectures and two one and one-half hour laboratories per week. (Fall/Spring)

**BIOL 210 Human Anatomy and Physiology II (3)**  
**BIOL 210L Human Anatomy and Physiology II Laboratory (1)**

Continuation of Human Anatomy and Physiology, which covers additional body systems and disease processes. For students with an interest in pre-med, nursing, human health, and biology. Three one-hour lectures and two one and one-half hour laboratories per week. (Spring)

**BIOL 211 Ecosystem Biology (4)**  
**BIOL 211L Ecosystem Biology Laboratory (1)**

Ecological studies utilizing the concepts of population biology: energetics, dynamics, distribution, and sociology. Overnight and/or weekend field trips may be required. Four lectures and one three-hour laboratory per week. (Fall)

**BIOL 221 Plant Identification (2)**  
**BIOL 221L Plant Identification Laboratory (2)**

Identification of flowering plants through the use of regional floras and recognition of common plant families. Plant collection and herbarium techniques. Two lectures and two two-hour laboratories per week. Prerequisites: BIOL 107. (Alternate Summer)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

- BIOL 231 Invertebrate Zoology** (3)  
**BIOL 231L Invertebrate Zoology Laboratory** (1)  
 Invertebrate phyla structure, physiology, classification, and life history. Work on an independent project is required. Three lectures and one two-hour laboratory per week. (Alternate Spring)
- BIOL 241 Pathophysiology** (4)  
 Function of the human body with emphasis on interpretation of those functions in relation to disease processes. Prerequisite: BIOL 209 or 341. (Fall/Spring)
- BIOL 250 Introduction to Medical Microbiology** (3)  
**BIOL 250L Introduction to Medical Microbiology Laboratory** (2)  
 Microorganisms, especially the procaryotic bacteria; culture techniques, biochemical identification, and infectious human diseases. Three lectures and two two-hour laboratories per week. (Spring)
- BIOL 296 Topics** (1-3)
- BIOL 301 Principles of Genetics** (3)  
**BIOL 301L Principles of Genetics Laboratory** (1)  
 Principles of genetics at the organismal, cellular, and molecular level dealing with the genetics of prokaryotic and eukaryotic organisms and viruses. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 105 and MATH 113; BIOL 302 recommended. (Fall)
- BIOL 302 Cellular Biology** (3)  
**BIOL 302L Cellular Biology Laboratory** (1)  
 Form, function, and bioenergetics of the cell. Three lectures and one two hour laboratory per week. Prerequisites: BIOL 106, 107, or consent of instructor. (Fall)
- BIOL 310 Developmental Biology** (3)  
**BIOL 310L Developmental Biology Laboratory** (2)  
 Embryonic growth and development of plants and animals. Also errors in normal development, cancer, aging, and related topics. Three lectures and two two-hour laboratories per week. (Alternate Spring).
- BIOL 315 Epidemiology** (3)  
 Characteristic patterns of communicable disease occurrence as related to individuals, geographic location, and time; factors affecting disease occurrence, the nature of vital statistics, sampling procedures, and study design. An independent project is required. (Alternate Fall)
- BIOL 320 Plant Systematics** (3)  
 Systematic botany encompassing principles of classification, nomenclature, and evaluation of current classifications of angiosperms. Prerequisites: BIOL 221. (Alternate Spring)
- BIOL 321 Taxonomy of Grasses** (2)  
**BIOL 321L Taxonomy of Grasses Laboratory** (2)  
 A study of the grass family and grass-like plants (sedges and rushes) dealing with the evolution, classification, and identification of these plants. Two lectures and two two-hour laboratories per week. Prerequisite: BIOL 107 or consent of instructor. (Alternate Fall)
- BIOL 331 Insect Biology** (3)  
**BIOL 331L Insect Biology Laboratory** (2)  
 Insect taxonomy, evolution, ecology, and physiology. Insect collection required. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 106. (Fall)
- BIOL 332 Introduction to Geographic Information Systems** (2)  
**BIOL 332L Introduction to Geographic Information Systems Lab** (1)  
 Basic knowledge of the fundamentals of GIS with regard to theoretical, technical, and application issues. Prerequisites: GEOL 305 (may be taken concurrently), GEOL 111/111L or GEOL 113/113L (recommended). (Fall/Spring)
- BIOL 341 General Physiology** (3)  
**BIOL 341L General Physiology Laboratory** (1)  
 Function of the circulatory, nervous, respiratory, digestive, urinary, reproductive, and endocrine systems of the human body. Three lectures and one two-hour laboratory per week. Prerequisite: BIOL 106 or consent of instructor. (Spring)
- BIOL 342 Histology** (2)  
**BIOL 342L Histology Laboratory** (2)  
 Microscopic study of tissues and organs. Two lectures and two two-hour laboratories per week. Prerequisites: BIOL 106 or BIOL 107 and consent of instructor. (Alternate Fall)
- BIOL 343 Immunology** (3)  
**BIOL 343L Immunology Laboratory** (1)  
 Immune system of animals with emphasis on human immune response. Includes the immune organs and both cellular and humoral responses. An independent research project is required. Three lectures and one two-hour laboratory per week. Prerequisites: BIOL 302 and BIOL 302L, or BIOL 301 and BIOL 301L. (Spring)
- BIOL 350 Microbiology** (3)  
**BIOL 350L Microbiology Laboratory** (1)  
 Growth, morphology, metabolism, genetics and ecology of microorganisms. Includes aspects of industrial microbiology, clinical microbiology, and genetic engineering. Three lectures and one three-hour laboratory per week. Prerequisites: BIOL 105, and CHEM 121/121L or CHEM 131/131L. (Spring)
- BIOL 386 Introduction to Science Education** (3)  
 Theories of learning and how they relate to methods of instruction in science education. The application of instructional methods and the development of course curricula. Required for Teacher Licensure (Secondary) in Biology. (Fall)
- BIOL 387 Structured Research** (1-3)  
 Independent research beyond the scope of the published curriculum. Designed for advanced sophomore and junior level students to participate in research activities under the direc-

tion of a specific faculty member. May be repeated for up to 6 credit hours. Prerequisites: sophomore or junior standing, or consent of instructor. (Fall/Spring)

**BIOL 388 Teaching Science in the Secondary School** (3)  
**BIOL 388L Teaching Science in the Secondary School Laboratory** (1)

Methods of teaching and construction of lessons and curricula. To be taken not more than two semesters before student teaching. Lesson presentation and numerous papers required. Required for secondary certification. (Spring)

**BIOL 395 Independent Study** (1-3)

**BIOL 396 Topics** (1-3)

**BIOL 403 Evolution** (3)

Organismal and molecular evolution emphasizing its importance as the unifying theory in biology. Evolution of natural selection on genetic structure of populations. Prerequisites: BIOL 106, 107, 301, and senior standing. (Spring on demand)

**BIOL 405 Advanced Ecological Methods** (3)

**BIOL 405L Advanced Ecological Methods Laboratory** (2)

Examination of quantitative methods in population, community, and ecosystems ecology. Extensive writing, computer work and field trips are required. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 105, 106, 107; STAT 311 is recommended. (Alternate Spring)

**BIOL 406 Plant-Animal Interactions** (3)

Ecological, evolutionary, and applied approaches to the studies of herbivory, ant-plant interactions, pollination, and seed dispersal. Prerequisites: BIOL 105, 106, 107; BIOL 331 is recommended. (Spring)

**BIOL 407 Tropical Field Biology** (5)

Field research techniques, ecology and natural history in lowland and montane tropical rainforests of Ecuador. Ten nine-hour labs and fifteen two-hour lectures conducted at biological field stations in Ecuador. Prerequisite: BIOL 105, 106, 107, or consent of instructor. (Summer)

**BIOL 411 Mammalogy** (3)

**BIOL 411L Mammalogy Laboratory** (1)

Classification, life histories, and ecology of mammals. Overnight and/or weekend field trips may be required. Two lectures and one two-hour laboratory or three-hour field trip per week. Prerequisites: upper division standing or consent of instructor. (Alternate Fall)

**BIOL 412 Ornithology** (3)

**BIOL 412L Ornithology Laboratory** (1)

Classification and life history of birds, including field identification. Overnight and/or weekend field trips may be required. Three lectures and one two-hour laboratory or three-hour field trip per week. Prerequisite: upper division standing or permission of instructor. (Alternate Spring)

**BIOL 413 Herpetology** (3)

**BIOL 413L Herpetology Laboratory** (1)

Classification, evolution, morphology and ecology of amphibians and reptiles. Overnight or weekend field trips may be required. Three lectures and one two-hour laboratory per week. Prerequisites: upper division standing or consent of instructor. (Alternate Spring)

**BIOL 414 Aquatic Biology** (3)

**BIOL 414L Aquatic Biology Laboratory** (1)

Classification, life history, and ecology of aquatic animals. Overnight and/or weekend field trips may be required. Three lectures and one two-hour laboratory or three-hour field trip per week. Prerequisite: upper division standing or permission of instructor. (Alternate Spring)

**BIOL 415 Tropical Ecosystems** (2)

Ecology of rainforests, grasslands, and desert ecosystems of the world. Prerequisites: one year of biological sciences or consent of instructor. (Spring)

**BIOL 416 Ethology** (3)

**BIOL 416L Ethology Laboratory** (1)

Mechanisms and evolution of behavior utilizing captive animals and field trips. Overnight field trips may be required. Three lectures and one two-hour laboratory per week and several field trips, possibly overnight. Prerequisites: BIOL 106, 107, and consent of instructor. (Alternate Fall)

**BIOL 418 Wildlife Management** (3)

Examination of wildlife biology and management. Topics covered include managing habitat, mammals, birds, fish, and other small animals. Three one-hour lectures per week. Prerequisites: Upper division standing, BIOL 211 recommended. Corequisite: BIOL 418L. (Alternate Spring)

**BIOL 418L Wildlife Field Techniques** (2)

Methods for using equipment in the field of wildlife and fisheries management. One one-hour laboratory and one three-hour field trip per week. Prerequisite: Upper division standing or consent of instructor. Corequisite: BIOL 418 (Alternate Spring)

**BIOL 421 Plant Physiology** (3)

**BIOL 421L Plant Physiology Laboratory** (2)

Plant-water relationships, plant mineral nutrition, photosynthesis, plant growth and development at the molecular and cellular level to account for plant growth at the organismal level. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 107, CHEM 121 and also recommended CHEM 122. (Alternate Spring)

**BIOL 423 Plant Anatomy** (3)

**BIOL 423L Plant Anatomy Laboratory** (2)

Form, variability, and structure of the tissues comprising the body of the higher plant. Three lectures and two two-hour laboratories per week. Prerequisites: BIOL 107, 107L. (Alternate Spring)

**BIOL 425 Molecular Genetics** (3)  
Nature and expression of genetic information at the molecular level in prokaryotic and eukaryotic organisms. Prerequisite: BIOL 301. (Alternate Spring)

**BIOL 426 Introduction to Electron Microscopy** (2)  
**BIOL 426L Introduction to Electron Microscopy Laboratory** (2)

History, theory and techniques of Electron Microscopy science. Some detailed knowledge of biology, histology, chemistry and physics is required to thoroughly and competently investigate selected specimens. Special attention will be paid to the operation of the microscope at Mesa State College. Prerequisites: restricted to juniors and seniors with instructor approval. (Spring)

**BIOL 431 Animal Parasitology** (3)  
**BIOL 431L Animal Parasitology Laboratory** (1)

Common and important parasites of domestic animals and man. Ecology, epidemiology, diagnosis, and control are discussed with examples from the Protozoa, Trematoda, Cestoda, Nematoda, and Arthropoda. An independent research project is required. Three lectures and one two-hour laboratory per week. (Alternate Fall)

**BIOL 441 Endocrinology** (3)  
**BIOL 441L Endocrinology Laboratory** (1)

Anatomy and physiology of the endocrine system of vertebrates. Laboratory: emphasis on normal and abnormal endocrine functions. Three lectures and one two-hour laboratory per week. Prerequisite: BIOL 106 or consent of instructor. (Fall)

**BIOL 442 Pharmacology** (3)

Principles underlying absorption, distribution, metabolism, and excretion of drugs with emphasis on mechanisms of action and physiological responses. Prerequisite: BIOL 209 and 209L, one year of chemistry, and junior or senior standing. (Fall)

**BIOL 450 Mycology** (2)  
**BIOL 450L Mycology Laboratory** (2)

Fungi, with emphasis on comparative morphology and development, classification, physiology, genetics, and ecological relationships. Emphasis will also be placed on the importance of fungi in industry, agriculture, and medicine. Two lectures and two two-hour laboratories per week. Prerequisites: BIOL 107 or consent of instructor. (Fall)

**BIOL 482 Senior Research** (2)

Designed to introduce students to appropriate procedures for conducting literature reviews, designing experiments, collecting and analyzing data, and preparing written and oral presentations of such experiments. Two lectures per week or equivalent. Prerequisites: senior standing, 2.80 GPA, and consent of instructor. (Fall)

**BIOL 483 Senior Thesis** (2)

Students prepare an in-depth thesis elaborating on a major conceptual issue(s) in biology. The purpose of the thesis is to

ascertain the student's ability to collect a broad array of information and integrate this into a logical conceptual framework that traverses organizational levels of living systems. The thesis topic must be approved by the instructor. Prerequisites: senior standing and consent of instructor. (Spring)

**BIOL 487 Advanced Research** (1-3)

Provides students with an individualized research experience on a topic approved and directed by a specific faculty member. A detailed report in the form of a scientific journal article must be provided to the instructor. May be repeated for up to 6 credit hours. Prerequisites: BIOL 482 or consent of instructor; BIOL 387 is highly recommended. (Fall/Spring)

**BIOL 494 Seminar** (1)

Current problems, topics, and research procedures in biological sciences and medicine. Topics announced each semester. Prerequisites: sophomore standing and consent of instructor. (Alternate Fall)

**BIOL 495 Independent Study** (1-3)

**BIOL 496 Topics** (1-3)

**BIOL 499 Internship** (2-10)

Work experience obtained on a job where assignments are primarily biological projects. The amount of credit awarded is determined by the school based on the nature of the assignment. Prerequisites: biology major, senior standing with either a 2.80 GPA in major courses, completion of BIOL 482, or consent of instructor. (Fall/Spring/Summer)

## **BUSINESS (BUGB)**

---

**BUGB 101 Introduction to Business** (3)

American business system operations in the economy, business functions, and interrelations between the businessman and his environment. Prerequisites: Can be taken for credit only by students who have completed fewer than 15 credit hours of BUGB, ACCT, MANG, MARK, OFAD, TRAV, CISB, or FINA courses. (Fall/Spring)

**BUGB 105 Freshman Business Seminar** (2)

Introduction to the culture of business for prospective majors. Operational strategies and teamwork are developed via computer simulation. Students will gain exposure to a wide variety of historical and current leaders through readings and discussions. Cannot be taken for credit by students who have completed more than six credit hours of business courses. (Fall/Spring)

**BUGB 141 Business Mathematics** (3)

Fundamental review of whole numbers, decimals, and fractions. Emphasis is placed on percentage applications to solving various business problems in the areas of buying and selling merchandise, inventory computations, interest computations on notes and savings, consumer credit and installment computation, home mortgage loans, and business depreciation computations. (Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.



- BUGB 211 Business Communications** (3)  
Development of a non-defensive, supportive, communication system effectively applied to interpersonal and written transactions within the business organization. Prerequisite: ENGL 111. (Fall/Spring)
- BUGB 221 Insurance** (3)  
Common types of protection offered by insurance, including fire, theft, comprehensive, life, automobile, accident, and health. Emphasis on application of insurance to individuals and small business firms. (On demand)
- BUGB 231 Survey of Business Law** (3)  
Application of law as it applies to employees and individuals not dealing with legal matters of organizations. Topics include contracts, agency law, personal property, business organizations and form, and commercial paper. Especially suited for non-business majors. Students contemplating or enrolled in a four year degree program should take BUGB 349. No credit allowed if credit already established in BUGB 351. (Spring)
- BUGB 241 Income Tax** (3)  
Personal income tax, including filling out personal tax returns, exemptions, determining taxable income, adjustments to gross income, itemized deductions, rental income, depreciation, capital gains and losses. Not for students with an accounting emphasis. (On demand)
- BUGB 249 Personal Finance** (3)  
Personal finance management, including income, personal budgeting, taxes, securing loans, consumer credit, insurance, buying a home, and an introduction to investment. (Spring)
- BUGB 293 Cooperative Education** (3-6)  
Practical workplace experience under the joint supervision of the employer and the internship coordinator. Designed for non-business majors working in the business environment. (Fall/Spring/Summer)
- BUGB 349 Legal Environment of Business** (3)  
Legal framework of business including foundations of the American legal system, anti-trust law, property law, contracts and sales, negotiable instruments, agency relationships, torts, labor law, international business law and the social environment of business. Prerequisites: junior or senior standing or consent of instructor. (Fall/Spring)
- BUGB 351 Business Law I** (3)  
Contracts (formation, requirements, interpretation, discharge, and enforcement), agency law, and other contracting parties. Includes analysis of the concept of personal property and an introduction to the partnership form of ownership. Prerequisites: junior or senior standing or consent of instructor. (Fall)
- BUGB 352 Business Law II** (3)  
Corporate form of ownership as artificial persons doing business; Uniform Commercial Code as the primary law covering sales (terms of sales contracts, product liability, performance,
- and breach); commercial paper (instruments used as a monetary substitute, such as checks, drafts, and promissory notes); credit (security interests in real and personal property); and real property. Prerequisite: BUGB 351 or consent of instructor. (Spring)
- BUGB 393 Cooperative Education** (3-9)  
Cooperative Education internships provide non-business students an opportunity to put their education to practical use in the workplace under the joint supervision of an organization-based supervisor and a Mesa State College faculty coordinator. Written consent of coordinator required prior to registration. (Fall/Spring/Summer)
- BUGB 395 Independent Study** (1-3)
- BUGB 396 Topics** (1-3)
- BUGB 401 International Business** (3)  
Current international topics in the disciplines of finance, management, and marketing. Concepts, analytical tools, and models are introduced to help explain the diversity and complexity of the international business environment. Prerequisites: senior standing. (Fall)
- BUGB 493 Cooperative Education** (3-12)  
See description of BUGB 393.
- BUGB 495 Independent Study** (1-3)
- BUGB 496 Topics** (1-3)
- BUGB 500 Advanced Business Law and Ethics** (3)  
Emphasizes the regulations, statutes and cases that impact business on a daily basis. Topics covered include contract law, negotiations, labor law, the Uniform Commercial Code, and the law of business organizations to include limited liability companies. (Spring)
- BUGB 510 Global Business** (3)  
Explores international management concepts and procedures and their importance to modern managers. Operating in multi-national, multi-cultural managerial environment, the modern manager must understand business and management from a global perspective. Emphasis is placed on comparing and contrasting management practices in different nation-states and how this might affect decisions concerning risk, investment, human resources, finances, operations, manufacturing and production in a multi-national business. (On Demand)
- BUGB 520 Seminar in Current Business Topics** (3)  
Develops topics of current interest in the business world. Areas included are effective communication strategies, ethics, and the global dimension of business. (On Demand)
- BUGB 530 Research Design** (3)  
Examines the design of research projects. Topics will include selection of the problem, secondary data, historical research, descriptive research, experimental research, the tools of research, and interpretation of data. (On Demand)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**BUGB 590 Thesis** (6)  
A comprehensive research project of original design. (On Demand)

**BUGB 595 Cooperative Education** (3)  
The cooperative education course provides the student with the opportunity to apply classroom theory to on-the-job experiences related to classroom instruction. During the cooperative education course, the students work off-campus at professional business positions. The student will be required to write his/her own course objectives with the approval of the cooperative education graduate advisor. Prerequisites: ACCT 500, BUGB 500, FINA 500, MANG 500, MANG 501, MANG 510, MARK 500. (Fall/Spring)

## CHEMISTRY (CHEM)

✓ **CHEM 100 Chemistry and Society** (3)  
Introduction to selected topics in chemistry. Nonmathematical approach with frequent lecture demonstrations and particular attention to chemical technology and its impact on society. (Fall/Spring)

✓ **CHEM 121 Principles of Chemistry** (4)  
✓ **CHEM 121L Principles of Chemistry Laboratory** (1)  
Introduction to fundamental principles of chemistry. Designed for students planning a major in science as well as students with a non-science major. Topics include atomic structure, bonding, periodic table, gas laws, mass relationships, solution theory, oxidation-reduction, electrochemistry, and ionic equilibrium. Four lectures and one three-hour lab per week. Prerequisite: mastery of high school algebra. (Fall/Spring)

✓ **CHEM 122 Principles of Organic Chemistry** (4)  
✓ **CHEM 122L Principles of Organic Chemistry Laboratory** (1)  
Introduction to the chemical and physical properties of selected classes of organic compounds. Four lectures and one three-hour laboratory per week. Prerequisite: CHEM 121 or 131 or one year of high school chemistry and consent of instructor. (Spring)

✓ **CHEM 131, ✓ 132 General Chemistry** (4,4)  
✓ **CHEM 131L, ✓ 132L General Chemistry Laboratory** (1,1)  
Fundamental principles of chemistry. Designed for students planning a major in science. Topics include atomic structure, bonding, periodic law, kinetic theory, gas laws, stoichiometry, phase relationships, solutions, oxidation-reduction, electrochemistry, and equilibrium. Four lectures and one three-hour laboratory per week. Prerequisite: one year of high school chemistry and mastery of high school algebra. CHEM 131 and 131L are prerequisites for CHEM 132 and 132L. (Fall/Spring)

**CHEM 151 Engineering Chemistry** (4)  
**CHEM 151L Engineering Chemistry Laboratory** (1)  
Selected fundamentals of inorganic chemistry. Topics include stoichiometry, periodic law, bonding, gas laws, phase relations, solutions, electrochemistry, and equilibrium. Designed for students of physics and engineering (except chemical engineering.) Four lectures and one three-hour laboratory per week. Corequisite: MATH 113. Prerequisites: high school chemistry and satisfactory entrance examination scores or CHEM 121. (On demand)

**CHEM 196 Topics** (1-3)

**CHEM 211 Quantitative Analysis** (3)  
**CHEM 211L Quantitative Analysis Laboratory** (1)  
Classical methods of analysis, treatment of experimental data, and the underlying logic of quantitative methods. Topics include gravimetric, volumetric, and potentiometric methods. Three lectures and one three-hour laboratory per week. Prerequisite: CHEM 132. (Fall)

**CHEM 296 Topics** (1-3)

**CHEM 300 Environmental Chemistry** (4)  
Aquatic and atmospheric chemistry. Basic chemical, physical and biological properties of organic pollutants. Topics include smog formation, stratospheric ozone depletion, greenhouse gases, acid mine waste formation, biogeochemistry, and bioaccumulation of halogenated organics. Prerequisites: CHEM 122 or 132. (Alternate Spring)

**CHEM 311, 312 Organic Chemistry** (4,4)  
**CHEM 311L, 312L Organic Chemistry Laboratory** (1,1)

Chemical and physical properties of the major classes of organic compounds. Three lectures and two three-hour laboratories per week. Prerequisite: CHEM 132 or consent of instructor. (Fall/Spring)

**CHEM 315 Biochemistry** (3)  
**CHEM 315L Biochemistry Laboratory** (1)  
Classical biochemistry concerned with the control of metabolism, the production of energy, the relationship of structure to function, carbohydrates, lipids, proteins, and nucleic acids. Three lectures and one three-hour laboratory per week. Prerequisite: CHEM 312/312L. (Fall)

**CHEM 321 Physical Chemistry I (Fall)** (3)  
**CHEM 322 Physical Chemistry II (Spring)** (3)  
Application of methods of physics to chemistry. Study of equilibrium properties of bulk matter, quantum theory with applications to molecular structure. Statistical mechanics used to understand the microscopic origin of thermodynamic laws. Calculations of macroscopic thermodynamic properties made from molecular properties. Connection made in kinetics between thermodynamics, quantum theory and statistical mechanics for study of time-dependent processes. Prerequisites: CHEM 132, PHYS 122 and MATH 152. (Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**CHEM 341 Advanced Laboratory I (Fall)** (2)

**CHEM 342 Advanced Laboratory II (Spring)** (2)

Experiments from analytical, inorganic, organic, physical, and biological chemistry designed to show the application of theory to chemical problems. In addition to a list of possible core experiments, each student chooses other experiments according to individual interests. Two three-hour laboratories per week. Prerequisites: CHEM 211/211L; 312/312L; and 321. (Spring)

**CHEM 395 Independent Study** (1-3)

**CHEM 396 Topics** (1-3)

**CHEM 397 Structured Research** (1-3)

Chemical research under the direct guidance of a faculty member. Designed for sophomore through senior level students. Prerequisite: Permission of instructor. (On demand)

**CHEM 411 Main Group Elements** (3)

A study of the periodic trends in non-transition elements. Topics include atomic and molecular structure, periodicity, acid-base relationships, and the descriptive chemistry of non-transition elements. Prerequisite: CHEM 322. (Alternate Fall)

**CHEM 412 Transition Elements** (3)

A study of the periodic trends in transition elements. Topics include coordination compounds, symmetry and group theory, spectroscopy, and the descriptive chemistry of the transition elements. Prerequisite: CHEM 411. (Alternate Fall)

**CHEM 421 Advanced Organic Chemistry I** (3)

Selected topics in organic chemistry are discussed in detail. Prerequisites: CHEM 312, 322. (Fall)

**CHEM 422 Advanced Organic Chemistry II** (3)

Similar in content to CHEM 421, but without overlap in topics. CHEM 421 is not a prerequisite for 422. Prerequisites: CHEM 312, 322. (Spring)

**CHEM 431 Instrumental Analysis** (3)

**CHEM 431L Instrumental Analysis Laboratory** (1)

Modern instrumental methods of analysis. Topics include signals and noise, atomic spectroscopy, molecular spectroscopy, electroanalytical chemistry and chromatographic separation methods. Three lectures and one 3-hour laboratory per week. Prerequisite: CHEM 211/211L. (Spring on demand)

**CHEM 482 Senior Research I (Fall)** (2)

**CHEM 483 Senior Research II (Spring)** (2)

A formal research project undertaken with the guidance of a faculty member. The results will be presented as a formal scientific paper in a format suitable for publication. (Fall/Spring)

**CHEM 494 Seminar** (1)

Student, faculty, and other speakers present a variety of topics in chemistry and related fields. Prerequisites: Chemistry

major with senior standing or consent of instructor. (Fall/Spring)

**CHEM 495 Independent Study** (1-3)

**CHEM 496 Topics** (3)

## **COMPUTER DRAFTING TECHNOLOGY (CADT)**

**CADT 100 Basic CAD/CAM** (2)

**CADT 100L Basic CAD/CAM Laboratory** (2)

Designed to give the student a basic working knowledge of CAD and how to apply a CAM package for production of machine parts. Two one-hour lectures and one two-hour laboratory per week. Prerequisites: computer and machining experience preferred or consent of instructor.

**CADT 101 Introduction to Computers** (1)

Introduction to hardware and software including operating systems, word processing, spreadsheets, desktop publishing and presentation software. (Fall)

**CADT 106 Computer Aided Design** (1)

**CADT 106L Computer Aided Design Laboratory** (2)

Basic principles of computer aided design through the development of practical drawing problems using a computer. One one-hour lecture and two one and one-half laboratories per week. (Fall/Spring)

**CADT 107 Advanced Computer Aided Design** (1)

**CADT 107L Advanced Computer Aided Design Laboratory** (2)

Advanced work in computer aided drafting principles including 2-D, 3-D, shading, etc. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisites: CADT 106, 106L or consent of instructor. (Fall/Spring)

**CADT 108 CAD – Mechanical** (1)

**CADT 108L CAD – Mechanical Laboratory** (2)

Offers the student basic principles of computer aided drafting through the development of practical drawing problems using CAD software on the computer. One one-hour lecture and two one and one-half laboratories per week. (Fall/Spring)

**CADT 109 CAD – Advanced** (1)

**CADT 109L CAD – Advanced Laboratory** (2)

Advanced work in computer aided drafting principles including 2-D and 3-D shading, solid based modeling and parametric modeling. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisite: CADT 108/108L. (Spring)

**CADT 110 CAD Application** (2)

**CADT 110L CAD Application Laboratory** (2)

This course offers the student an opportunity to apply skills and knowledge gained in earlier courses. The student will work on computer aided drawings relating to their career field of interest and advice of faculty. Intern or Coop may be

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

substituted with approval of advisor. Two one-hour lectures and two one and one-half hour laboratories per week. Prerequisites: CADT 107, 107L or CADT 109, 109L. (On demand)

**CADT 120 Intro to Still Images (1)**  
**CADT 120L Intro to Still Images Laboratory (2)**

Students study the fundamentals of the animation software, identify and understand the command panels, toolbars, and special controls of the software’s functional features, design and create 3D modeled drawings that are animated and rendered scenes. Course work will include lecture, lab, and presentation of 3D drawings. Prerequisites: CADT 107, 107L or CADT 109, 109L. (Fall)

**CADT 130 CAD – Civil (1)**  
**CADT 130L CAD – Civil Laboratory (2)**

Civil drafting will explore the aspects of current day mapping and topography, instruments, conventions and practices, contours, traverses, profiles, surveying, and photogrammetry through CAD drawings. Students will be introduced to GIS, graphical interface systems. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisites: CADT 107, 107L and/or CADT 109/109L. (Spring)

**CADT 135 CAD – Civil II (1)**  
**CADT 135L CAD – Civil II Laboratory (2)**

Exploration of advanced aspects of current day mapping and topography. An in-depth instruction on road plan and profiles, cut and fill techniques and further instruction using skills from CAD 130. Prerequisites: CADT 130 and CADT 130L. (Alternate Fall)

**CADT 140 CAD – Architectural Theory (2)**

Architectural theory will introduce the student to three major areas of architecture: basic structures and their design, building codes and career opportunities. Corequisites: CADT 141, 142 and 142L. (Fall)

**CADT 141 Structural Materials (3)**

This course will identify the properties and applications of the materials of industry. Codes, standards and testing will be emphasized in the fields of architecture. There will be an introduction to mechanical, electrical, plumbing and systems requirement. Corequisites: CADT 140, 142 and 142L. (Fall)

**CADT 142 CAD – Residential Architecture (1)**  
**CADT 142L CAD – Residential Architecture Laboratory (2)**

Residential Architectural CAD will provide the student with a realistic residential project that will begin with schematic design and take him/her through to construction documents. Construction documents will include: site plan, floor plan, exterior elevations, foundation plan, floor framing plan, roof framing plan, building section, and a variety of construction details. One one-hour lecture and two one and one-half hour laboratories per week. Corequisites: CADT 140, 141 and 142. Prerequisites: CADT 107, 107L and or CADT 109, 109L. (Fall)

**CADT 143 CAD – Commercial Architecture (1)**  
**CADT 143L CAD – Commercial Architecture (2)**

Commercial Architectural CAD will emphasize the creation of commercial project plans that will begin with schematic design and continue through to construction documents. Construction documents will include site plan, foundation floor slab plan, roof framing plan, building section and a variety of construction details. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisites: CADT 107, 107L and/or CADT 109, 109L and CADT 140. (Spring)

**CADT 150 Advanced Images, Intro to Animation (3)**  
**CADT 150L Advanced Images, Intro to Animation Lab (1)**

Advanced work in computer aided drafting principles including 3-D renderings and animation techniques. One one-hour lecture and two one and one-half hour laboratories per week. Prerequisite: CADT 120. (Spring)

**CADT 195 Independent Study (1-3)**

**CADT 196 Topics (1-3)**

**CADT 296 Topics (1-3)**

**COMPUTER INFORMATION SYSTEMS (CISB)**

---

**CISB 101 Business Information Technology (3)**

Basic concepts of computers, with focus on terminology, hardware, software, and the implications of computer technology to society. Business use of computers including discussion of computer security, privacy of information, future implications, purchasing computers and software, and business application. Introduction to current business software. (Fall/Spring)

**CISB 205 Advanced Business Software (3)**

Students become proficient through a combination of lecture, demonstration, and projects in the advanced use of electronic spreadsheets, word processing, and data base management software. Prerequisite: Basic computer competencies. (Fall/Spring)

**CISB 210 Fundamentals of Information Systems (3)**

Introduction to systems theory and informational technology. Course will focus on computing and on system growth, re-engineering, and organizational roles. (Fall/Spring)

**CISB 295 Independent Study (1-3)**

**CISB 321 Assembler Language (3)**

See CSCI 321 for course description.

**CISB 331 Advanced Business Programming (3)**

This course presents procedural and object oriented software engineering methodologies using modern business languages. Emphasis is on data definition, record and file pro-

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

cessing, report generation and other traditional business information systems applications using modern methods of top-down, structured design. Prerequisite: CSCI 110. (Fall)

**CISB 392 Information Systems Theory and Practice (3)**

Exploration and application of Information Systems theory. Course examines how IS theory relates to an organization's success, management roles, users, and IS professionals. Prerequisites: CISB 210. (Fall/Spring)

**CISB 395 Independent Study (1-3)**

**CISB 396 Topics (1-3)**

**CISB 400 Data Communications and Network Management (3)**

Current technology in data communications and networks used in a business organization, including management of data communications and networks; hardware, media, and software; LANs; distributed data processing, telecommunications, current issues and future trends. Prerequisite: ELCT 260. (Spring)

**CISB 442 Systems Analysis and Design (3)**

Basic systems analysis tools and the procedures for conducting a systems analysis, including systems requirements, initial analysis, general feasibility study, structured analysis, detailed analysis, logical design, and the general systems proposal. Students gain practical experience through projects and/or case studies. Prerequisite: CISB 210. (Spring)

**CISB 451 Database Administration (3)**

Covers design and implementation of a Database Management System from a non-technical viewpoint. Recommended for business students with focus on business users in the design of the DBMS, control integrity, and security. DBMS implementation will be through hands-on use of an actual DBMS. Prerequisites: CISB 205, 442, ACCT 202. (Fall)

**CISB 460 Electronic Commerce Systems (3)**

A comprehensive examination of the modern phenomenon of electronic commerce, how it is conducted and managed, and its major opportunities, limitations, issues and risks. Coverage of technological infrastructures that support e-commerce systems, plus the implications of such systems in the business environment. Exercises will include exploration of e-commerce web sites and features, plus discussion and demonstration of state-of-the art e-commerce tools. Prerequisite: CISB 210 or permission of instructor. (Fall)

**CISB 471 Advanced Information Systems (3)**

Follows CISB 442 and will integrate management information needs, decision-making criteria, and design of manager/computer interactive systems. Computerized management control systems for all major functional modules of an organization will be investigated as well as computer simulations, data base management systems, distributed processing, and

structured systems development. Prerequisites: CISB 442 or consent of instructor. (Spring)

**CISB 495 Independent Study (1-3)**

**CISB 496 Topics (1-3)**

**CISB 500 Management Information Systems (3)**

Reviews the development of an overall framework for analyzing the use of information by organizations along with examples of different types of information systems. The conceptual foundations of information systems and the development, operation, management, uses, parties, control, structure, and impact of these systems will be addressed. The analysis and design of information systems is stressed through case study and projects, emphasizing the role of computing in information systems and design of computer-based systems, expert systems, decision support systems and executive information systems. (On Demand)

## COMPUTER SCIENCE (CSCI)

---

In order to take any of the following computer science courses, each listed prerequisite (or an equivalent course) must be completed with a grade of "C" or better. The instructor may waive the prerequisite.

**CSCI 100 Computers in Our Society (3)**

The impact of computers on society and individuals; purpose and use of software integrated systems. Intended for students in disciplines outside the natural sciences and mathematics. (Fall/Spring)

**CSCI 106 Web Page Design I (3)**

Various aspects of Web page design such as HTML, Web servers, Web graphics/sound/video, and programs that automate the design of Web sites and scripts. Students will progressively develop their own sites throughout the term using software tools and concepts presented in the class. One class day per week will be scheduled in a computer laboratory. Prerequisites: Familiarity with Windows (some programming experience recommended). (Fall/Spring)

**CSCI 110 Beginning Programming (3)**

Introduction to computer programming. Includes syntax and semantics for sequential, selection, and repetition structures, program design and modularization simple and structured data types, and file I/O. Designed for majors outside the scientific disciplines. "Subtitle" indicates language of implementation. Prerequisites: MATH 113 or consent of instructor. (Fall/Spring)

**CSCI 110L Beginning Programming Laboratory (1)**

An optional laboratory course to be taken as a co-requisite to CSCI 110. This lab is intended for those students currently enrolled in CSCI 110 who have little or no previous programming/computer experience. The student taking this course will complete several computer assignments designed to increase the student's knowledge of programming, debug-

ging, and program design. “Subtitle” indicates language of implementation. Prerequisites: MATH 113 or consent of instructor. Corequisite: CSCI 110. (Fall/Spring/Summer)

**CSCI 111 Computer Science I (4)**

Introduction to problem solving techniques with emphasis on modularity, abstraction, analysis, and correctness of algorithm design. Using C/C++ language as a tool, topics covered include data types, control structures, I/O, and functions. Corequisite: MATH 119 or consent of instructor. (Fall/Spring)

**CSCI 112 Computer Science II (4)**

Continuation of CSCI 111 with emphasis on algorithm design and analysis, procedural abstraction, data abstraction, and quality programming style. Topics covered include distinction between dynamic and static variables; various implementations of elementary stacks, queues, trees and lists; comparison of recursive and iterative algorithms; program correctness; and hierarchical design principles. Programming exercises will focus on modularity of design and data abstraction. Prerequisites: CSCI 111. (Fall/Spring)

**CSCI 196 Topics (1-3)**

**CSCI 206 Web Page Design II (3)**

A continuation of CSCI 106. Students will learn a scripting language and how to incorporate scripts in web page design. Prerequisites: CSCI 106 or permission of instructor. (Spring)

**CSCI 241 Computer Architecture I (3)**

Architecture of a representative processor and its assembly language, introduction to hardware description language, register transfers and sequence control, realization of fetch, address, branch and execute cycles, start, stop and reset the computer, interrupt and memory mapped input-output, peripherals and interfacing. Prerequisite: CSCI 112. (Fall)

**CSCI 242 Computer Architecture II (3)**

Computer classes and description using PMS or ISPS, description of a few commercial computers, computer arithmetic, binary/octal/hexadecimal number system, hardware for arithmetic operations including floating-point type, processor management, memory organization and schemes, input-output management, control unit and microprogramming, multi- and parallel processors. Prerequisite: CSCI 241. (Spring)

**CSCI 250 Data Structures (3)**

Information representation, relationships between forms of representations and processing techniques, transformation between storage media, referencing of information as related to the structure of its representation, concepts of arrays, records, files, trees, list and list structure, sorting and search techniques. Prerequisite: CSCI 112. (Fall)

**CSCI 296 Topics (1-3)**

**CSCI 306 Web Page Design III (3)**

Continuation of CSCI 206. Students will consider web site management issues, server-side scripting, security, and data-

base interactions. Prerequisite: CSCI 206 or consent of instructor. (Fall/Spring)

**CSCI 310 Advanced Programming: (3)**

Exploration of a higher level programming language for CSCI/CISB majors. Specifics will vary with the language covered. Prerequisite: CSCI 250 or CISB 131. (Fall/Spring)

**CSCI 321 Assembly Language Programming (3)**

Introduction to assembler, creating and executing assembly language program, organization of machine under study, data definition, addressing techniques, data movement instruction, branching instructions, flag and PSW registers, arithmetic instructions, macros and their implementation, hardware and software interrupts, storing instructions, typical applications. Prerequisites: CSCI 241. (Fall)

**CSCI 330 Programming Languages (3)**

Algorithmic languages, declarations, storage allocation, sub-routines, co-routines, and tasks. The principles and concepts which characterize various classes of high-level, computer-programming languages are covered as well as list-processing language development and use. Analyzes strengths and weaknesses of list processors: SNOBOL, IPLV, LISP, etc. Prerequisites: CSCI 250. (Fall)

**CSCI 333 UNIX Operating Systems (3)**

Introduction to systems programming with UNIX. Topics covered include elementary and advanced user commands, file handling, process control, library routines, device drivers, shell programming, and UNIX utilities. Prerequisites: CSCI 112 or knowledge of C++/C. (Spring)

**CSCI 337 User Interface Design (3)**

Examination of user interface design (UID) principles. They include rules of perception, systems analysis, user analysis, good design principles, and testing and evaluation of designs. Using an appropriate Rapid Application Development tool, students will design a major project emphasizing UID concepts. Prerequisite: CSCI 250. (Spring)

**CSCI 375 Object Oriented Programming (3)**

Advanced programming techniques using the object-oriented paradigm, with emphasis on abstractness of design, encapsulation, inheritance, and polymorphism. Additional topics include design tools and methodologies for determining classes, responsibilities, collaborations, and hierarchies. Prerequisites: CSCI 250. (Spring)

**CSCI 380 Operations Research (3)**

Methods of linear and dynamic programming, inventory and replacement models, queuing theory, game theory, PERT, CPM, and simulation. Prerequisites: MATH 152, STAT 200, CSCI 111. (Spring, odd years only)

**CSCI 393 Internship (1-3)**

The internship course provides the student with the opportunity to apply classroom theory to on-the-job experiences. During the internship course, the student will work at approved professional positions related to the computer science field. The student will be required to write and fulfill

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

course objectives with the approval of the internship coordinator. Prerequisites: Junior standing, written consent of internship coordinator (Fall/Spring/Summer)

**CSCI 395 Independent Study (1-3)**

**CSCI 396 Topics (1-3)**

**CSCI 445 Computer Graphics (3)**

Introduction to the use of the computer to produce images: two and three dimensional graphics, algorithms and data structures for hidden lines and surfaces, shading, and reflections. Prerequisites: MATH 152 and CSCI 250. (Fall)

**CSCI 450 Compiler Structure (3)**

Structures and techniques used in compiler writing are discussed with emphasis on scanners, symbol tables, parsers and code generation. The front end of a recursive descent parser is written for the semester project. Error analysis and code optimization are discussed as time permits. Prerequisites: CSCI 321. Corequisite: CSCI 330. (Fall)

**CSCI 460 Data Base Design (3)**

Design and implementation of data base systems. The network, hierarchical, and relational approaches to design, and the problems of security and integrity will be discussed. Prerequisite: CSCI 250. (Spring)

**CSCI 470 Operating Systems Design (3)**

Aspects of computer operating system design and implementation including memory management, processor management, device management, information management and performance evaluation methods. Some knowledge of C is required. Prerequisite: CSCI 250, 321. (Spring)

**CSCI 480 Theory of Algorithms (3)**

Techniques for analyzing time and space requirements of computer algorithms. Models are set up for analysis and techniques are applied to algorithms related to sorting and searching, pattern-matching, graph problems and other selected problems. The notion of NP-hard problems is introduced and related problems are discussed. Prerequisites: MATH 152, CSCI 250. (On demand)

**CSCI 482 Theory of Computation (3)**

Computability and automata theory introduced. Regular expressions, finite and pushdown automata, Turing machines, grammars and their relationship to automata, Church-Turing hypothesis, incomputable and undecidable functions and equivalence of computability models are covered. Prerequisites: MATH 369, CSCI 250. (On demand)

**CSCI 484 Computer Networks (3)**

Topics include: hardware technology for local and long haul networks, circuit and packet switching, interface between computer and network hardware, network architectures and protocols, routing, congestion and flow problems, queuing theory, and reliability issues. Instructors may choose to implement a sample network in which case the contents may be particularized to that network. (Fall)

**CSCI 486 Artificial Intelligence (3)**

Introduction to artificial intelligence programming with study of topics such as knowledge representation, expert systems, solution space search, non-deterministic algorithms (neural nets, genetic algorithms), etc. Programs will be written in a selected AI programming language such as Lisp or Prolog. Prerequisites: CSCI 250, MATH 369. (Spring)

**CSCI 490 Software Engineering (3)**

Exploration of the philosophy of software engineering. Software project planning, requirement analysis, software system design and strategies, software design tools, program and system testing, system maintenance, and economics are examined. Prerequisites: CSCI 250 and CSCI 330. (Fall/Spring)

**CSCI 494 Seminar (1-2)**

Discussions of specialized topics by students, faculty, or visiting professors. One or two one-hour meetings per week. (Fall/Spring)

**CSCI 495 Independent Study (1-3)**

**CSCI 496 Topics (1-3)**

## **CULINARY ARTS (CUAR)**

---

**CUAR 121 Introduction to Food Production (1)**

Fundamental principles of commercial kitchen operations. (Spring On Demand)

**CUAR 122 Introduction to Hot Foods (1)**

Fundamental principles of stocks, soups, sauces, gravies, and products in the kitchen. (Spring On Demand)

**CUAR 123 Introduction to Garde Manger (1)**

Fundamental principles of cold foods and non-alcoholic beverage preparation. (Spring On Demand)

**CUAR 124 Food Production Applications (1)**

Basic cooking principles and practices in the production of stocks, soups, sauces and gravies, and vegetables, starches, fruits, salads, and dressing. (Spring On Demand)

**CUAR 131 Vegetables, Starches, Pastas, Breakfast and Short Order Cookery (1)**

Preparation of vegetables, starches, breakfast and grilled items. (Spring On Demand)

**CUAR 132 Center of the Plate: Meat (1)**

Preparation of a variety of meat dishes. (Spring On Demand)

**CUAR 133 Center of the Plate: Poultry, Fish (1)**

Preparation of a variety of seafood and poultry dishes. (Spring On Demand)

**CUAR 134 Food Production Applications II (1)**

Practical application of food production techniques related to courses CUAR 121, CUAR 122, CUAR 123, CUAR 134, CUAR 131, CUAR 132, and CUAR 133. Prerequisite: CUAR 124. (Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**CUAR 136 Beverage Management (2)**  
Principles and techniques of beverage management as they apply to: alcoholic/non-alcoholic beverages, wines, champagne, storage, purchasing, and legal concerns in the food service industry. (Fall/Spring)

**CUAR 138 Dining Room Management (4)**  
“Front of the house” operations common to the food service industry. Prerequisite: CUAR 155 (may be used as a corequisite with permission of instructor). (Fall/Spring)

**CUAR 141 Basic Baking Principles and Ingredients (1)**  
Fundamentals of baking terminology, principles of baking, and the characteristics and functions of the main ingredients used in bakery production. (Spring On Demand)

**CUAR 142 Basic Yeast-Raised Products and Quick Breads (1)**  
Application of basic yeast-raised baking principles. (Spring On Demand)

**CUAR 143 Cakes, Pies and Pastries, Cookies (1)**  
Application of basic cake, pie, pastry, and cookie production. (Spring On Demand)

**CUAR 144 Baking Applications (1)**  
Application of basic baking principles and production. (Spring On Demand)

**CUAR 155 Applied Food Service Sanitation (2)**  
Study of proper food handling techniques and sanitary regulations in the food service industry. (Spring On Demand)

**CUAR 156 Nutrition for the Food Service Worker (3)**  
Fundamentals of nutrition as they apply to the food service industry. (Spring On Demand)

**CUAR 157 Menu Planning (3)**  
Fundamentals of planning menus. (Spring On Demand)

**CUAR 161 Cost Controls (3)**  
Fundamentals of cost control as it applies to the food service industry. (Spring)

**CUAR 162 Cost, Purchasing, Pricing (4)**  
A continuation of CUAR 161 where students will learn the fundamentals of cost control as it applies to the food service industry. (Fall)

**CUAR 165 Computer Applications in the Food Service Industry (3)**  
Use of computer skills to perform word processor, spreadsheet, data base functions, and Internet as it relates to the food service industry. (Spring On Demand)

**CUAR 233 Advanced Line Preparation/Cookery (4)**  
Students will prepare entrees to order. Areas of concentration will be on cooking meat, fish, seafood, poultry and preparing sauces, vegetables, and edible garnishes. (Fall/Spring)

**CUAR 255 Food Service Supervision (3)**  
Development and application of managerial skills as applied to the food service industry. (Spring On Demand)

**CUAR 256 Food Service Marketing (3)**  
Development and application of marketing concepts as applied to the food service industry. (Spring On Demand)

**CUAR 299 Internship (2-8)**  
Industry supervised hands on work experience in the day-to-day operation, duties, and responsibilities of the food service worker. Consent of instructor is required. (Spring On Demand)

## **DANCE (DANC and DANP)**

---

### **ACADEMIC**

**DANC 115 Dance Appreciation (3)**  
Exploration of the roots and trends of the art of dance from the primitive to the contemporary. Introduction of esthetic guidelines for looking at dance as it relates to America and the world. (Spring)

**DANC 170 Theory and Practice Modern Dance (1)**  
Theory and practice of modern dance. Prerequisites: DANC 169 or consent of instructor. (Fall/Spring)

**DANC 175 Theory and Practice Jazz Dance (1)**  
Fundamentals of jazz dance including theory and technique. Prerequisite: DANC 174 or consent of instructor. (Fall/Spring)

**DANC 176 Theory and Practice Ballet (1)**  
Theory and practice of ballet. Prerequisite: DANC 160 or consent of instructor. (Fall)

**DANC 178 Theory and Practice Tap Dance (1)**  
Fundamentals of the theory and practice of tap dance. Prerequisite: DANC 177. (Fall/Spring)

**DANC 180 Beginning Hip Hop Dance (1)**  
Fundamentals of Hip Hop. Prerequisite: DANC 174 or consent of instructor. (Fall/Spring)

**DANC 196 Topics (1-3)**

**DANC 225 The Healthy Dancer (3)**  
Exploration into conditioning, nutrition, injury prevention, basic anatomy and motivational techniques unique to the dance student. (Alternate Fall)

**DANC 250 Beginning Dance Improvisation (2)**  
Introduction to and application of basic theories of dance improvisation. (Spring)

**DANC 255 Beginning Dance Composition (3)**  
Introduction to and application of basic theories of choreography, including principles of critical analysis. Prerequisite: DANC 250 or consent of instructor. (Fall)



- DANC 280 Theory and Practice and Hip Hop (1)**  
Intermediate theory and practice of Hip Hop. Prerequisite: DANC 180 or consent of instructor. (Fall/Spring)
- DANC 270 Theory and Practice Modern Dance (1)**  
Intermediate work in theory and practice of modern dance. Prerequisite: DANC 170 or consent of instructor. (Fall)
- DANC 271 Principles of Modern Dance (2)**  
Exploration of the elementary principles of modern dance through the technical and academic process. Prerequisite: DANC 170 or consent of instructor. (On Demand)
- DANC 275 Theory and Practice of Jazz Dance (1)**  
Intermediate theory and practice of jazz dance. Prerequisites: DANC 175 or consent of instructor. (Fall/Spring)
- DANC 276 Theory and Practice Ballet (1)**  
Intermediate work in theory and practice of ballet. Prerequisite: DANC 176 or consent of instructor. (Fall)
- DANC 277 Principles of Ballet (2)**  
Elementary principles of ballet through the technical and academic process. Prerequisite: DANC 176 or consent of instructor. (On Demand)
- DANC 278 Theory and Practice Tap Dance (1)**  
Intermediate theory and practice of tap dance. Prerequisite: DANC 178 or consent of instructor. (Fall)
- DANC 280 Theory and Practice Hip Hop (1)**  
Intermediate theory and practice of Hip Hop. Prerequisite: DANC 180 or consent of instructor. (Fall/Spring)
- DANC 296 Topics (1-3)**
- DANC 315 Dance History (3)**  
Cultural and historical exploration of dance, from its primitive roots to the 20th Century. (Alternate Fall)
- DANC 316 Dance History and Philosophy in the 20th Century (3)**  
Cultural, historic, and aesthetic exploration of dance in the 20th Century. (Alternate Spring)
- DANC 326 Methods of Teaching Ballet and Modern Dance (3)**  
Theory and application of methods of teaching ballet and modern dance. Prerequisite: DANC 270, 276, or consent of instructor. (Alternate spring)
- DANC 328 Rhythmic Analysis in Dance (3)**  
Exploration of rhythmic structure inherent in dance, including music notation, rhythmic coordination as it relates to dance and musicality of the body. (Alternate Fall)
- DANC 355 Advanced Dance Composition (3)**  
Advanced investigation and application of theories of choreography, including critical analysis of the art form. Prerequisite: DANC 255 or consent of instructor. (Spring)
- DANC 495 Independent Study (1-3)**

## PERFORMING

All DANP classes may be repeated once for credit.

- DANP 157 Repertory Dance (1)**  
Student participation in the production of a dance supervised by faculty or guest artist. Students must audition. Corequisite: one technique class. (Fall/Spring)
- DANP 257 Repertory Dance (1)**  
Student participation in the production of a dance supervised by faculty or guest artist. Students must audition. Corequisite: one technique class. (Fall/Spring)
- DANP 297 Choreography Practicum I (1)**  
Student practice in choreography and producing an original dancework. May be repeated once for credit. (Fall/Spring)
- DANP 357 Repertory Dance (1)**  
Student participation in the production of a dance work supervised by faculty or guest artist. Prerequisites: by audition, DANP 257, or consent of instructor. Corequisite: one technique class. (Fall/Spring)
- DANP 370 Modern Dance Technique (1)**  
Intermediate to advanced modern dance technique. Prerequisite: DANC 270 or consent of instructor. (Fall, on demand)
- DANP 375 Jazz Dance Technique (1)**  
Intermediate to advanced jazz dance technique. Prerequisites: DANC 275 or consent of instructor. (Fall, on demand)
- DANP 376 Ballet Technique (1)**  
Intermediate to advanced ballet technique. Prerequisites: DANC 276 or consent of instructor. (Fall, on demand)
- DANP 378 Tap Dance Technique (1)**  
Intermediate to advanced tap dance technique. Prerequisites: DANC 278 or consent of instructor. (Spring, on demand)
- DANP 397 Choreography Practicum II (1)**  
Student practice in choreography and producing an original dance work. May be repeated once for credit. Prerequisite: DANP 297 or consent of instructor. (Fall, on demand)
- DANP 457 Repertory Dance (1)**  
Student participation in the production of a dance work supervised by faculty or guest artist. Prerequisite: by audition, DANP 357, or consent of instructor. Corequisite: one technique class. (Fall/Spring)
- DANP 470 Modern Dance Technique (1)**  
Intermediate/advanced modern dance technique. Prerequisite: DANP 370 or consent of instructor. (Spring, on demand)
- DANP 475 Jazz Dance Technique (1)**  
Intermediate to advanced jazz dance technique. Prerequisite: DANP 375 or consent of instructor. (Spring, on demand)

## COURSE DESCRIPTIONS

105

**DANP 476 Ballet Technique (1)**  
Intermediate to advanced ballet technique. Prerequisite: DANP 376 or consent of instructor. (Alternate Spring)

**DANP 478 Tap Dance Technique (1)**  
Intermediate to advanced tap dance technique. Prerequisite: DANC 378 or consent of instructor. (Alternate Spring)

**DANP 497 Choreography Practicum III (1)**  
Student practice in choreography and producing an original dance work. May be repeated once for credit. Prerequisite: DANP 397 or consent of instructor. (Spring, on demand)

## ECONOMICS (ECON)

✓ **ECON 201 Principles of Macroeconomics (3)**

✓ **ECON 202 Principles of Microeconomics (3)**

Basic concepts of economics. Courses must be taken in sequence and are not open to freshmen. (Fall/Spring)

**ECON 301 Labor-Management Relations (3)**

Organized labor movement, employer labor policies, collective bargaining, wages and wage regulation, social insurance, and public labor policy. Counts as management course for BBA candidates. Prerequisites: ECON 201, 202, or equivalent. (Spring)

**ECON 310 Money and Banking (3)**

Monetary, credit, and banking systems in the United States. Counts as management course for BBA candidates. Prerequisites: ECON 201, 202, or equivalent. (Fall)

**ECON 312 Economic History of the United States (3)**

Economic development of the United States and the nation's economic institutions from the colonial period to the present. Prerequisites: ECON 201, 202 or HIST 131, 132, or consent of instructor. (On demand)

**ECON 320 History of Economic Ideas (3)**

Development of economic analysis, thought, theories, and doctrines from the ancient world to recent times. Prerequisites: ECON 201, 202, or equivalent. (Fall)

**ECON 342 Intermediate Macroeconomic Theory (3)**

Factors determining the level and rate of growth of GDP, the inflation rate, and the employment rate. Policies that have been (or may be) used to influence these variables, and empirical evidences on the relationships among variables are also studied. Prerequisites: ECON 201, 202, or equivalent, or consent of instructor. (Fall)

**ECON 343 Intermediate Microeconomic Theory (3)**

Problems of resource scarcity in a market economy. Emphasis is placed on an analysis of resource allocation under different forms of competition. Covers theory of the firm, theories of market structure, efficiency, equity, and the application of public policy. Prerequisites: ECON 201, 202, or equivalent, or consent of instructor. (Spring)

**ECON 395 Independent Study (1-3)**

**ECON 396 Topics (1-3)**

**ECON 401 Economic Organization and Public Policy (3)**  
Political economy of economic organization and public policy including analysis of the structure/conduct dimensions of industry and government institutions and their effects on resource allocation, income distribution, and economic performance. Antitrust, regulation, and other policies are treated concurrently. Counts as a management course for BBA candidates. Prerequisites: ECON 201, 202 or equivalent. (Spring)

**ECON 410 Public Sector Economics (3)**

Political economy of government finance including analysis of the effects of government revenue and expenditure policies on resource allocation, income distribution, and economic performance. Counts as a management course for BBA candidates. Prerequisites: ECON 201, 202, or equivalent. (Fall)

**ECON 420 International Economics (3)**

International trade theory and policy such as balance of payments analysis, international investment flows, and the position of the dollar in foreign exchange transactions. Prerequisites: ECON 201, 202, or equivalent. (On demand)

**ECON 495 Independent Study (1-3)**

**ECON 496 Topics (1-3)**

**ECON 530 Managerial Economics (3)**

The focus of this course is the application of economic theory and its tools to everyday business activities. Topics to be covered include the analytical tools of economics, macro and micro economic theory, and factors that influence demand. (On Demand)

## EDUCATION: EARLY CHILDHOOD EDUCATION (EDEC)

**EDEC 100 Parent Education and Preschool (1)**

Parenting skills in a preschool situation. Enrollment of both parent and child is required. (Fall/Spring)

**EDEC 102 Introduction to Early Childhood Professions Lab Experiences (3)**

Hands-on field experience for the student, who will demonstrate knowledge of child growth and development, guidance techniques, planning and implementation of curriculum, assessment techniques, and application of laws and standards. Prerequisite: EDEC 220. (Fall on demand)

**EDEC 148 Guidance Strategies for Children (3)**

Techniques to enhance guidance strategies through positive social skills, violence prevention, and anger management. The importance of family and community resources will also be addressed. (Fall on demand)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

- EDEC 196 Topics (1-3)** communicate and interact from birth to age 8. Prerequisites: EDEC 220. (On demand)
- EDEC 216 Early Childhood Education Administration: Human Relations (3)**  
The roles and relationships among children, families, early childhood professionals and community resources. Consideration will be given to family structures, communication skills, roles of support organizations, team building, evaluation tools and advocacy. Prerequisites: EDEC 220; EDEC 264 and 240 may be taken concurrently. (Spring)
- EDEC 220 Introduction to Early Care and Education (3)**  
An overview of history, philosophy, current and legal issues, licensing and health regulations, facilities, and programming for young children. Provides prospective teachers opportunity to assess roles played in dealing with children of diverse ethnic, cultural, and economic backgrounds. Field experience includes observation and participation in school settings three hours/week. (On demand)
- EDEC 230 Curriculum & Development: Infant/Toddler (3)**  
Curriculum for the age group birth – 2 years. Content emphasis is on maintaining healthful, safe, environmental activities to stimulate language, social emotional, cognitive, and physical development. (On demand)
- EDEC 238 Early Childhood Development 0-8 Years (3)**  
Theories, current research and developmental ages and stages of children, conception to 8 years. (Fall)
- EDEC 240 Curriculum & Development: Early Childhood (3)**  
Methods of creating and implementing curriculum based on their understanding of developmentally appropriate practice for children, birth to age 8. Application of the teaching/learning process, and of managing the learning environment, will draw from research and practical application. Prerequisites: EDEC 220, and EDEC 238 or PSYC 233 (may be taken concurrently). (Spring on demand)
- EDEC 250 Exceptionalities in Early Education (2)**  
Exploration of disabilities, assessment activities, and learning environments for children with diverse needs in the early years (birth-age 8). Prerequisites: EDEC 220, 230, 240, and EDEC 238 or PSYC 233. (Spring)
- EDEC 264 Administration in Early Education (3)**  
Overview of management concepts applicable in a variety of early education settings. Course content focuses on management of programs and personnel, program and staff development, fiscal administration, and evaluation. Prerequisites: EDEC 220, 230, 240. (Spring)
- EDEC 290 Early Literacy for the Young Child (2)**  
In-depth view of early literacy development in a changing, diverse society intended for the prospective early childhood teacher. Includes research about the language and literacy of young children. Explores how learners develop the ability to
- EDEC 297 Practicum (1-2)**  
Supervised experience working with children and families in early care and education settings. Accepted by the State Department of Child Care Services for licensing purposes. Scheduling is flexible. Prerequisite: consent of instructor. (Fall/Spring/Summer)
- EDEC 299 Student Teaching in Early Education (5)**  
Full time supervised teaching experience which allows the student teacher the opportunity to apply developmentally appropriate, standards-based practice, theories, and philosophies acquired in coursework. Provides incremental responsibility for teaching, supervision, and management of young children birth to 6 years. A seminar is an integral part of the experience requirement. Prerequisites: EDEC 220, 230, 240. (Fall/Spring)

## **EDUCATION: TEACHER LICENSURE (EDUC)**

---

- EDUC 100 Introduction to Libraries (3)**  
Provides a general overview of libraries and their roles in schools and the community. The evolving role of libraries will be explored in the context of professional/school settings, different types of libraries, and the evolution of information, access, and distribution in a digital age. (Summer on demand)
- EDUC 101 Information Literacy (3)**  
A theoretical approach to the flow of information and a practical introduction to the skills necessary to navigate information systems. Print and electronic resources; legal, economic, social and public aspects of information resources; strategies for critical evaluation of information resources; library services and resources. (Summer on demand)
- EDUC 150 American Education: Past, Present, and Future (3)**  
An honors course that includes an historical view of public and private education; current challenges; demographic, sociological, technological, and economic trends and their effects on education; educational reform; comparative education systems; and future directions for public and private schooling in America. (On demand)
- EDUC 211 Foundations of Education (2)**  
Overview of the teacher education program and profession. Introduction to social, legal, historical, political, theoretical, and philosophical foundations of education. Course time will include school and educational services visitations. Prerequisites: ENGL 111, ENGL 112, SPCH 102, PSYC 233, all with a B or higher, MATH 105 for Elementary Education students or MATH 110 for Secondary/K12 Education students, declaration of a major in one of the approved courses

of study at Mesa State College leading to licensure; admission to Teacher Education program. May be taken concurrently with EDUC 341 or 342 and EDUC 343. (Fall/Spring)

**EDUC 340 Pedagogical and Assessment Knowledge for Teachers: Early Childhood, Birth – 8 Years (3)**

Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience. Prerequisites: Admission to the Teacher Education Program or permission of the instructor, EDUC 211. May be taken concurrently with EDUC 341 and EDUC 343. (Fall/Spring)

**EDUC 341 Pedagogy and Assessment: K-6/ Elementary (3)**

Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience. Prerequisites: Admission to the Teacher Education Program. May be taken concurrently with EDUC 211. Corequisite: EDUC 343. (Fall/Spring)

**EDUC 342 Pedagogy and Assessment: Secondary and K-12 (3)**

Exploration of age/grade level teaching strategies, motivation principles, informal and formal assessments, planning strategies, and classroom management techniques. Includes a minimum of 20 hours of field experience. Prerequisites: Admission to the Teacher Education Program. May be taken concurrently with EDUC 211. Corequisite: EDUC 343 (Fall/Spring)

**EDUC 343 Teaching to Diversity (3)**

Study of differences in student development and approaches to learning. Addresses ethnic, linguistic, gener, sexuality, socioeconomic, ability/disability, and community diversity. Includes a minimum of 20 hours of field experience. Prerequisites: Admission to the Teacher Education Program. May be taken concurrently with EDUC 211. Corequisites: EDUC 341 or EDUC 342. (Fall/Spring)

**EDUC 395 Independent Study (1-3)**

**EDUC 396 Topics (1-3)**

**EDUC 440 Methods of Teaching Language and Literacy: EC (4)**

Survey of current research in early/emergent language and literacy, including language development and acquisition, family and community roles, teaching and learning strategies, literature in the curriculum, and ongoing assessment in instruction. Includes a minimum of 50 hours of field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211; may be taken concurrently with EDUC 451, 452 and/or 453. (Spring)

**EDUC 441 Methods of Teaching Language and Literacy: Elementary (6)**

Exploration of student literacy development in multiple literacies, with a focus in emergent and content area literacy. Study and application of instructional strategies for the reading/writing process, phonemic awareness, vocabulary, comprehension strategies, reading and writing workshops, literacy assessment, and integration of literacy across the curriculum, particularly in the social sciences. Field placements will be in a lab school environment for three mornings of school per week. Includes a minimum of 120 hours field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211, EDUC 340 and/or 341 and 343. Corequisites: EDUC 451 and EDUC 461. (Fall/Spring)

**EDUC 442 Integrating Literacy Across the Curriculum: Secondary and K-12 Art (5)**

Exploration of multiple forms of student literacies. Study and application of instructional strategies for various literary genres across the middle school and high school curriculum with a focus in philosophical and theoretical perspectives from multicultural texts. Candidates develop a fully integrated unit to implement in field study. Includes a minimum of 60 hours of field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211, EDUC 342, EDUC 343; Corerequisites: EDUC 497 and EDUC 497A, B, C, D, or E as appropriate to content area. (Fall/Spring)

**EDUC 451 Methods of Teaching Mathematics: Early Childhood/Elementary (4)**

Prepares students to teach mathematics to elementary age students. Focus on major concepts, procedures, and reasoning processes that define number systems and number sense, geometry, measurement, statistics and probability, and algebra. Theoretical and practical approaches support learning about standards, content, delivery, and assessment. Field placements will be in a lab school environment for three afternoons of school per week. Includes a minimum of 60 hours of field experience. Prerequisites: Admission to the Teacher Education Program, EDUC 211, EDUC 340 and/or 341, 343, MATH 105, MATH 205, and MATH 301. Corequisites: EDUC 441 and EDUC 461. (Fall/Spring)

**EDUC 461 Methods of Teaching Science & Social Studies: Early Childhood/ Elementary (3)**

Study and application of content standards in science, health, civics, geography, history, and economics for elementary age students. Develops teaching proficiency and an understanding of integration of these subjects across the content areas. Field experiences are incorporated into the math/literacy block during three school days per week. Prerequisites: Admission to the Teacher Education Program, EDUC 211, EDUC 340 and/or EDUC 341, EDUC 343. Corequisites: EDUC 441 and EDUC 451. (Fall/Spring)

**EDUC 485 Modes of Inquiry (2)**

Science, social studies and the arts as modes of inquiry. Designing standards based instruction as guided and

exploratory interdisciplinary inquiries. Integrating seven interdisciplinary compulsories across the curriculum. This course involves a minimum of forty-five hours of preparation/online interaction and participation in 15 hours of classroom seminars within approximately four weeks. Prerequisite: Admission to the (cohort) PBL program. Corequisite: EDUC 491. (Summer)

**EDUC 486A Accommodating Diverse and Exceptional Needs K-6 (2)**

Designing, developing, implementing and assessing the effectiveness of instruction differentiated for relevant student diversity and exceptionalities; teaming with specialists; current state and federal guidelines and mandates. Field-based with online and classroom components. This course involves a minimum of five hours of preparation/online interaction per week and participation in three (Sept/Oct/Nov) six-hour classroom seminars. Prerequisites: EDUC 485 and EDUC 491. Corequisites: EDUC 492A, EDUC 487 and EDUC 488. (Fall)

**EDUC 487 Literacy Education K-6 (2)**

Designing, developing, implementing and assessing well-aligned, well-differentiated, discipline-specific curriculum, instruction, assessments and accommodations unique to K-6 Literacy Education. Field based with online and classroom components. This course involves a minimum of five hours of preparation/online interaction per week and participation in three (Sept/Oct/Nov) six-hour classroom seminars. Prerequisites: EDUC 485 and EDUC 491. Corequisites: EDUC 492A, EDUC 483 and EDUC 488. (Fall)

**EDUC 488 Math Education K-6 (2)**

Designing, developing, implementing and assessing well-aligned, well-differentiated, discipline-specific curriculum, instruction, assessments and accommodations unique to K-6 Math Education. Field based with online and classroom components. This course involves a minimum of five hours of preparation/online interaction per week and participation in three (Sept/Oct/Nov) six-hour classroom seminars. Prerequisites: EDUC 485 and EDUC 491. Corequisites: EDUC 492B, EDUC 486 and EDUC 487. (Fall)

**EDUC 491 PBL I: Foundations of Curriculum, Instruction, and Assessment (9)**

Designing cycles of instruction that are well-aligned (with standards and assessments); well-differentiated (for content, the learner and the situation): and support the development of self-directed learning. Course has online and classroom components. This June/July course involves a minimum of six hours of preparation/online interaction per day and participation in ten six-hour classroom seminars. Prerequisite: Admission to the (cohort) PBL program. Corequisite: EDUC 485. (Summer)

**EDUC 492A PBL 2: Directed Teaching – Elementary Education (12)**

Full-time mentored August-December placement to develop accuracy, fluency and complexity in the design, implementa-

tion and assessment of instruction through observing, assisting, teaming (80%) and solo teaching. Prerequisites: EDUC 485 and EDUC 491. Corequisites: EDUC 486, EDUC 487 and EDUC 488. (Fall)

**EDUC 495 Independent Study (1-3)**

**EDUC 496 Topics (1-3)**

**EDUC 497 Content Methodology Practicum (1-6)**

Theory and practice of differentiated instruction, lesson study design and implementation, and basic concepts of Understanding by Design. Introduction to comprehensive school reform and curriculum design, as well as a focus on the improvement of teaching methodology across the curriculum. Includes a minimum of 80 hours of field experience. Prerequisites: Admission to the Teacher Education Program and EDUC 211, EDUC 342 and 343, and completion of all content area courses. Corequisites: EDUC 442 and EDUC 497A, B, C, D, or E as required by degree. (Fall/Spring)

**EDUC 497A Methods of Teaching Secondary English (1)**

Theory and practice of teaching English language arts in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in reading comprehension, language, linguistics, comprehension, and rhetoric. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211, EDUC 342 and 343, and completion of all English content area courses required for degree. Corequisites: EDUC 442 and EDUC 497. (Fall/Spring)

**EDUC 497B Methods of Teaching Secondary Social Sciences (1)**

Theory and practice of teaching history and the social sciences in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in United States history, world history, government, civics, political science, geography, economics, and behavioral science. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211, EDUC 342 and 343, and completion of all history content area courses required for degree. Corequisites: EDUC 442 and EDUC 497. (Fall/Spring)

**EDUC 497C Methods of Teaching Secondary Mathematics (1)**

Theory and practice of teaching mathematics in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in arithmetic, basic algebra, functions, graphing, probability, statistics, and integrated math. Lesson preparation and presentation required. Prerequisites: Admission to the Teacher Education Program and EDUC 211, EDUC 342 and 343, and completion of all math content area courses required for degree. Corequisites: EDUC 442 and EDUC 497. (Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**EDUC 497D Methods of Teaching Secondary Science (1)**  
Theory and practice of teaching science in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: scientific methodology, techniques, and history; physical, life, and earth sciences; and science and technology. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211, EDUC 342 and 343, and completion of all science content area courses required for degree. Corequisites: EDUC 442 and EDUC 497. (Fall/Spring)

**EDUC 497E Methods of Teaching Secondary Spanish (1)**  
Theory and practice of teaching Spanish in middle and high schools. Current strategies, programs, materials, and media for the development of curriculum in: interpretive listening, structure of the language and grammatical accuracy, interpretive reading, and cultural perspectives. Lesson preparation and presentation required. Prerequisites: Admission to Teacher Education Program and EDUC 211, EDUC 342 and 343, and completion of all Spanish content area courses required for degree. Corequisites: EDUC 442 and EDUC 497. (Fall/Spring)

**EDUC 499A Teaching Internship and Colloquia: K-2 (6)**  
Available for students who are pursuing ECE/ELED licensure and standards-based education: an eight-week experience. Colloquiums are included and required. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 340 and/or 341, 343, 440 and/or 441, 451, 452, 453; all other coursework for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 in EDUC classes. (Fall/Spring)

**EDUC 499B Teaching Internship and Colloquia: 3-6 (6)**  
Available for students who are pursuing ECE/ELED licensure and standards-based education: an eight-week experience. Colloquiums are included and required. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 340 and/or 341, 343, 440 and/or 441, 451, 452, 453; all other course work for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 GPA in EDUC classes. (Fall/Spring)

**EDUC 499C Teaching Internship and Colloquia: Elementary (12)**  
Full-time (40 hrs min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Three required colloquia on Thursday evenings are included during this 15-week experience. Students must begin internship a minimum of one week prior to the beginning of the district school semester, regardless of the Mesa State start date. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 341, 343, 441, 451, 461 and all other course work for bachelor's degree completed; as well as 2.8 GPA in major and 2.8 GPA in EDUC classes. (Fall/Spring)

**EDUC 499D Teaching Internship and Colloquia: Elementary for K-12 (6)**  
Full-time (40 hrs min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Required colloquia on Thursday evenings are included during this eight-week experience. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 342, 343, 441 (except Music and HPW majors); appropriate content area methods course/s; all other coursework for bachelor's degree completed; 2.8 cumulative GPA as well as 2.8 GPA in major and 2.8 GPA in EDUC classes. Corequisite: EDUC 499H (Fall/Spring)

**EDUC 499G Teaching Internship and Colloquia: Secondary (12)**  
Full-time (40 hours min/week) supervised teaching experience designed to allow the intern the opportunity to apply standards-based education and theories and philosophies acquired in professional education coursework. Three required colloquia on Thursday evenings are included during this 15-week experience. Students must begin internship a minimum of one week prior to the beginning of the district school semester, regardless of the Mesa State start date. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 342, 343, 442, 497, and 497A, B, C, D, or E as appropriate for content area major; all other course work for bachelor's degree completed; 2.8 cumulative GPA, as well as 2.8 GPA in major and in 2.8 GPA in EDUC classes. (Fall/Spring)

**EDUC 499H Teaching Internship and Colloquia: Secondary for K-12 (6)**  
Supervised teaching experience at the secondary level for students who are pursuing K-12 licensure and standards-based education. Several colloquia are included in the eight-week experience. Prerequisites: Formal admission to the Teacher Education Program; EDUC 211, 342, 343, 442 (except Music and HPW majors); appropriate content area methods course/s; all other course work for bachelor's degree completed; 2.75 cumulative GPA as well as 2.75 GPA in major and 2.75 GPA in EDUC classes. (Fall/Spring)

**EDUC 499I PBL 3: Directed Teaching: Elementary Education (12)**  
Continued full-time mentored January-May placement to develop solo professional competence in instructional design, implementation and assessment; and document having had a positive effect on student learning, across fifteen weeks of full-time solo teaching. A colloquium is an integral part of the experience requirement. Prerequisites: Program continuance approval. (Spring)

**ELECTRIC LINEWORKER (ELCL)**

NOTE: Twenty-five hours scheduled instruction per week in ELCL courses scheduled in Fall and Spring semesters unless otherwise noted.

**ELCL 111 Mathematical Basic Electricity (5)**  
Mathematical formulas used in voltage, amperage, resistance, and power determination, metering problems, power factor correction, and line design problems. (Fall)

**ELCL 120 Fundamentals of Electricity (5)**  
Generation, transmission, and distribution of electricity beginning with the electron and its function of transporting electric power to homes and industry. (Fall)

**ELCL 131 Electrical Distribution Theory I (4)**  
Pole setting techniques, framing methods and specifications, climbing, sagging and splicing of conductors, energizing and de-energizing of lines, and installation of protective grounds. (Fall)

**ELCL 132 Electrical Distribution Theory II (4)**  
**ELCL 132L Electrical Distribution Theory II Laboratory (2)**

Installation and operation of protective equipment, transformer hookups, voltage regulation, hotstick maintenance, troubleshooting, and gloving from the pole. Four hours lecture, three hours laboratory per week. Prerequisite: ELCL 131. (Spring)

**ELCL 136L Related Fundamentals I Laboratory (4)**  
Examination of National Electric Safety Code, truck maintenance, equipment operation, material records, electrical test meters, and introduction to transformers. Twelve hours per week. (Fall)

**ELCL 137 Related Fundamentals II (2)**

**ELCL 137L Related Fundamentals II Laboratory (4)**  
Meter safety, connector installation, street lighting, rubber cover up, and public relations. Two hours lecture, eight hours laboratory per week. Prerequisite: 136L. (Spring)

**ELCL 140 Underground Procedure (4)**

**ELCL 140L Underground Procedure Laboratory (2)**  
Safety practices, terminology, fault finding, cable locating, switching procedure, installation of terminal devices, splicing, and transformer application. Five hours lecture, four hours laboratory per week. (Spring)

**ELCL 145 Hotline Procedures (1)**

**ELCL 145L Hotline Procedures Laboratory (2)**  
Two weeks of training by outside specialists covering current hotline maintenance and underground installation methods. Eight hours lecture, twenty-four hours laboratory per week. (Spring)

**ELCL 195 Independent Study (1,2)**

**ELCL 196 Topics (1,2)**

**ELCL 199 Internship (6)**  
Opportunity for an individual to be employed for training by a utility company while maintaining his/her status as a Mesa State College student. Provides excellent on-the-job training benefits. Students usually selected for this course by formal interview. Prerequisite: consent of instructor. Eighteen hours per week, two semesters (Summer and Fall) after completion of regular program.

**ELECTRONICS TECHNOLOGY (ELCT)**

NOTE: Enrollment, with instructor approval, may occur at any time (open entry) for certain courses. Please check with the instructor.

**ELCT 150 C Programming for Technology (3)**  
Introductory course in programming using the C language specifically directed toward the technology student solving technical problems. No mathematics beyond elementary algebra and right angle trigonometry are required. Prerequisites: ELCT 117& ELCT 118. (Fall/Spring)

**ELCT 152 UNIX Operating System (3)**  
Covers the software that the majority of UNIX users work with on a daily basis. Prerequisites: ELCT 132. (Fall/Spring)

**ELCT 257 Laser Technology (2)**  
**ELCT 257L Laser Technology Laboratory (1)**  
Covers laser design, types and components, the effects and potential hazards of laser light and the effects of infrared radiation. Two hour lectures and one two-hour laboratory per week. Prerequisites: ELCT 118, 164, 230 or consent of instructor. (Summer/Fall/Spring)

**ELCT 258 Fiber Optics (2)**  
Covers fiber types and the active devices used to generate and detect fiber optic transmission light. Prerequisites: ELCT 118, 164, and 165 or consent of instructor. (Summer/Fall/Spring)

**ELCT 262 Personal Computer Networking (2)**  
**ELCT 262L Personal Computer Networking Laboratory (2)**

How to specify, install and maintain local area networks. Covers the basics and protocols of data communications and communication architectures. Two one-hour lectures and two two-hour laboratories per week. Prerequisites: ELCT 132/132L, ELCT 165/165L, and ELCT 260/260L. (Fall/Spring)

**ELCT 266 Microprocessors I (3)**  
**ELCT 266L Microprocessors I Laboratory (1)**

Use of the microprocessor to teach machine language programming, computer arithmetic, organization of microprocessors, interfacing, and input/output operations. Three one-hour lectures and one and one-half laboratory per week. Prerequisite: consent of instructor. (Summer/Fall/Spring)

**ELCT 267 Microprocessors II** (3)  
**ELCT 267L Microprocessors II Laboratory** (1)  
 Using the microprocessor to do real world tasks of interfacing memory for program storage and I/O devices for systems communication. Three one-hour lectures and one two-hour laboratory per week. Prerequisites: ELCT 266/266L. (Fall/Spring)

**ELCT 293 Cooperative Education** (3-12)  
 Cooperative Education provides students an opportunity to put their education to practical use in the workplace under the joint supervision of an employer participating in the Cooperative Education program and a faculty member designated by the institution. (See "Cooperative Education" in this catalog.)

**ELCT 295 Independent Study** (1-2)

**ELCT 296 Topics** (1-2)

## ENGINEERING (ENGR)

TI-82 or TI-85 (preferred) or equivalent calculator is recommended or required for engineering classes.

**ENGR 105 Basic Engineering Drawing** (3)  
 Fundamentals of computer-aided drafting and design. This is a foundation course for engineering-oriented students. Current engineering practice is emphasized, and computers are introduced as a tool for modern engineering design and drawing. (Fall/Spring)

**ENGR 111 Engineering Graphics and Design** (3)  
 Basic problem-solving techniques used in engineering and the sciences. Topics include graphics, modeling, experimental methods, data analysis, value judgments, design processes, and decision making in realistic engineering situations. Prerequisites: MATH 130 and ENGR 105 or equivalents. (Spring)

**ENGR 131 Introduction to Cartography** (3)  
 Introduction to maps as tools for communication and analysis of locationally related information, including an introduction to concepts in Geographic Information Systems (GIS) and Global Positioning Systems (GPS). (Fall)

**ENGR 251 Circuit Analysis I** (3)  
**ENGR 251L Circuit Analysis I Laboratory** (1)  
 Circuit analysis and modern electronics practice. Fundamental principles are applied to linear, time-invariant, lumped-parameter circuits. Electromechanical, thermal, and optical sensors are used with operational amplifiers in a variety of signal processing and wave-shaping applications. Four lectures and one two-hour laboratory per week. Prerequisites: PHYS 132, 132L. Corequisite: MATH 253. (Fall)

**ENGR 252 Circuit Analysis II** (3)  
**ENGR 252L Circuit Analysis II Laboratory** (1)  
 A continuation of ENGR 251. The time-domain analysis of RL, RC, and RLC networks is first examined, with particular attention given to their natural and step responses. Mutual inductance and transformers are studied. Finally, the Laplace transform is used in circuit analysis, along with frequency domain techniques for networks. Three lectures and one two-hour laboratory per week. Prerequisite: ENGR 251, 251L. (Fall)

**ENGR 255 Thermodynamics** (3)  
 The laws of thermodynamics applied to bulk matter. Examples are drawn from engineering, chemistry, biology, and physics. The role of the Second Law is emphasized, and applications range from engine performance to chemical reactions and phase changes. Free energy concepts are introduced and used throughout the course. Prerequisites: PHYS 131, 131L, MATH 152. (Fall)

**ENGR 261 Statics and Dynamics I** (3)

**ENGR 262 Statics and Dynamics II** (3)

A two-semester introduction to statics and dynamics for scientists and engineers. Newtonian mechanics is first used to study the static equilibrium of solids. The vector principles of statics are used to study forces, couples, and force systems. These principles are applied to the structural analysis of trusses, cables, joints, and frames. Frictional forces are examined. Centers of gravity, centroids, radii of gyration, and moments of inertia are utilized. The principle of virtual work is introduced. The kinematics and kinetics of particles, systems, and rigid bodies are investigated, along with the concept of impulse and the principles of momentum and energy conservation. Applications to rigid-body motion are emphasized. Vibrations of solid bodies are studied, along with resonance phenomena. Finally, the propagation of waves in simple mechanical systems is investigated. Prerequisites: PHYS 131, 131L for ENGR 261; ENGR 261 for ENGR 262. Corequisites: MATH 253 for ENGR 261. (Fall/Spring)

## ENGLISH (ENGL)

**ENGL 090 Basic Writing** (3)  
 Basic writing skills for students who need more background for formal college writing or whose ACT score is lower than that required for admission to English 111. (Fall/Spring)

✓ **ENGL 111 English Composition** (3)  
 Effective communication through writing. Prerequisite: Students who do not meet placement criteria will be assigned to ENGL 090 and must pass that class with a "C" or higher to enroll in ENGL 111. (Fall/Spring)

✓ **ENGL 112 English Composition** (3)  
 Critical writing about literature; research. Prerequisite: ENGL 111 with a grade of "C" or higher to fulfill English



Competency requirement under General Education. (Fall/Spring)

✓ **ENGL 129 Honors English** (3)

Examination of readings and creation of persuasive essays, research papers, and critical analyses. This course fulfills the composition requirements (ENGL 111 and ENGL 112) for baccalaureate students whose ACT or SAT scores are high and whose writing skills are strong. Permission to enroll is required. Students must pass ENGL 129 with a grade of "C" or higher to fulfill English competency requirement under General Education. (Fall/Spring)

✓ **ENGL 131 Western World Literature I** (3)

Works from the Classical, Medieval, and Renaissance periods. (Fall/Spring)

✓ **ENGL 132 Western World Literature II** (3)

Works from the late Renaissance, Neoclassic, Romantic, and Modern periods. (Fall/Spring)

✓ **ENGL 150 Introduction to Literature** (3)

Study of major genres of literature. (Fall/Spring)

**ENGL 196 Topics** (1-3)

**ENGL 219 Introduction to Professional Writing** (3)

Introductory course in the professional writing concentration. Study of technical writing, public information and public relations writing, and free-lance nonfiction writing. Prerequisite: ENGL 112. (Fall)

✓ **ENGL 222 Mythology** (3)

Basic myths of the Greeks and Romans, the cultures that produced them and/or the Northern and Medieval myths of Europe, their backgrounds in classical culture and native folklore. (Fall/Spring)

**ENGL 231 Non-Western World Literature I** (3)

Literature from cultures outside the Western tradition, from antiquity to approximately 1800. Texts, chosen by instructor, may include works from China, Japan, India, the Middle East, etc. (Fall/Spring)

**ENGL 232 Non-Western World Literature II** (3)

Nineteenth and twentieth century literature from Eastern, Indian, African, Asian and Latin American traditions. (Fall/Spring)

**ENGL 240 Children's Literature** (3)

Survey of literature for children from birth to age 12, focusing on ways of reading texts. Prerequisites: ENGL 111, 112. (Fall/Spring)

**ENGL 245 Imaginative Writing** (3)

Introduction to the theory and practice of imaginative writing for young people. Prerequisite: ENGL 111. (Fall/Spring)

**ENGL 250 Introduction to Creative Writing** (3)

An introduction to the theory and practice of producing original works of poetry, fiction, and non-fiction prose. Prerequisite: ENGL 111 (Fall/Spring)

✓ **ENGL 254 Survey of English Literature I** (3)  
English literature from its beginnings through the Enlightenment. (Fall)

✓ **ENGL 255 Survey of English Literature II** (3)  
English literature from the Romantics to the present day. (Spring)

✓ **ENGL 261 Survey of American Literature I** (3)  
American literature from the beginnings to the late 19th Century. (Fall)

✓ **ENGL 262 Survey of American Literature II** (3)  
American literature from the late 19th Century to the present. (Spring)

**ENGL 296 Topics** (1-3)

**ENGL 301 Classical Greek and Latin Literature** (3)  
Readings in English of Greek and Roman authors and major classical genres. Prerequisites: 100 or 200 level literature course. (Alternate Spring)

**ENGL 311 English Medieval Literature** (3)  
Major works of Old and Middle English literature. Prerequisites: ENGL 254 or consent of instructor. (Alternate Fall)

**ENGL 313 English Renaissance Literature** (3)  
Major works of the 16th and 17th Centuries, including the Metaphysical and Caroline poets and John Milton. Prerequisite: ENGL 254 or consent of instructor. (Alternate Spring)

**ENGL 314 American Literature to 1830** (3)  
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period. Prerequisites: ENGL 261 or consent of instructor. (Alternate Fall)

**ENGL 315 American Literature 1830-1870** (3)  
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period. Prerequisites: ENGL 261 or consent of instructor. (Alternate Spring)

**ENGL 316 American Literature 1870-1900** (3)  
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period. Prerequisites: ENGL 262 or consent of instructor. (Alternate Fall)

**ENGL 320 Report and Proposal Writing** (3)  
Introduction to the theory and practice of preparing and analyzing reports and proposals intended for businesses, govern-

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

mental agencies, and private and corporate foundations.  
Prerequisite: ENGL 219. (Alternate Fall)

**ENGL 330 Women in World Thought and Literature (3)**  
Readings in world literature by and about women; interdisciplinary study of feminist theories and women's contributions to world thought. (Alternate Fall)

**ENGL 335 The Bible as Literature (3)**  
The Old Testament as a literary masterpiece. (Fall)

**ENGL 343 Language Systems and Linguistic Diversity (3)**  
Introduction to the nature of language, first and second language acquisition, and issues relevant to linguistic diversity and multicultural literacies. Prerequisite: ENGL 111. (Fall/Spring)

**ENGL 355 Shakespeare (3)**  
Early and mature plays, including genres of comedy, history, tragedy, and romance, emphasizing close textual reading in conjunction with cultural and intellectual contexts. (Fall/Spring)

**ENGL 365 Literature for Children and Young Adults (3)**  
Advanced study of major works for youth and adolescents throughout history, with an emphasis on contemporary authors. (Fall/Spring)

**ENGL 370 Major Author (3)**  
In-depth study of one or two important writers, with attention to the writer's distinctive style and subject matter, the range of the writer's career, and the influence of the writer's work. (Fall/Spring)

**ENGL 380 Creative Writing: Non-Fiction (3)**  
Theory and practice of producing original works of non-fiction. Prerequisite: ENGL 250. (Spring)

**ENGL 381 Creative Writing: Fiction (3)**  
Theory and practice of producing original works of fiction. Prerequisites: ENGL 250 or consent of instructor. (Fall)

**ENGL 382 Creative Writing: Character and Narrative (3)**  
Theory and practice of creating original characters and narratives. Prerequisites: ENGL 250 or consent of instructor. (Spring)

**ENGL 383 Creative Writing: Poetry (3)**  
Theory and practice of producing original works of poetry. Prerequisites: ENGL 250 or consent of instructor. (Spring)

**ENGL 384 Expository and Persuasive Writing (3)**  
Writing with emphasis on style, structure, organization, and audience. (Alternate Fall)

**ENGL 385 Technical and Professional Writing (3)**  
Practice in writing and editing of workplace documents, including correspondence, reports and proposals. Prerequisites: ENGL 112 and ENGL 219. (Alternate Spring)

**ENGL 386 Roots of Modern Rhetoric (3)**  
A survey of the history of rhetoric from classical Greece to the present with emphasis on the Greco-Roman tradition. Prerequisites: 200 level writing course. (Alternate Fall)

**ENGL 390 Introduction to Film Studies (3)**  
Introduction to film narrative, cinematography, and theory. Prerequisites: ENGL 112 and 9 hours of Humanities credit. (Spring)

**ENGL 394 Technical and Professional Writing Topics (3)**  
Topics at the discretion of the instructor, or to meet the needs of the department. Topics may include: grant writing for industry; professional editing; desktop publishing for professional writing; writing for online presentation; individual and team writing. Prerequisite: ENGL 219. (Alternate Fall)

**ENGL 395 Independent Study (1-3)**

**ENGL 396 Topics (1-3)**

**ENGL 397 Practicum (6)**  
Experience in a Basic Writing classroom helping the instructor with all phases of writing instruction. Prerequisite: permission of department head. (Fall/Spring)

**ENGL 398 Practicum in Editing and Publishing (1-3)**  
Experience in editing and publishing one of Mesa State's journals. Credit hours contracted through advising instructor. Prerequisite: Consent of instructor. (Fall/Spring/Summer)

**ENGL 415 American Folklore (3)**  
American folklore with an emphasis on collecting Colorado and especially Western Colorado lore. (Alternate Fall)

**ENGL 421 History of Literary Criticism (3)**  
Development and theory of literary criticism. (Spring)

**ENGL 423 Short Story (3)**  
History and development of short stories. (Spring)

**ENGL 425 Scientific Writing (3)**  
Theoretical and practical studies of writing in the sciences (science, medicine, and environmental writing). Addresses writing for both popular and professional audiences. Coverage of both print and online instructional materials. Safety, ethical and liability issues. Prerequisite: ENGL 219. (Spring)

**ENGL 427 Writing for Industry (3)**  
Theoretical and practical studies of writing for industrial fields. Addresses writing for both popular and professional audiences. Covers both print and online instructional materials. Safety, ethical, and liability issues. Prerequisite: ENGL 219. (Alternate Fall)

**ENGL 435 American Literature 1900-1945 (3)**  
An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

period. Prerequisites: ENGL 262 or consent of instructor. (Alternate Spring)

**ENGL 436 American Literature 1945-Present (3)**

An in-depth study of various significant texts of the period, as well as other relevant texts. Texts and authors are chosen by the instructor to provide a thorough study of selected important historical, philosophical and literary aspects of the period. Prerequisites: ENGL 262 or consent of instructor. (Alternate Fall)

**ENGL 438 Ethnic Experiences in U.S. Literature (3)**

Survey of literary works written throughout United States history by African-American, Hispanic-American, Native American and Asian American authors, as well as by authors from other under represented cultural communities. Prerequisite: 100 or 200 level literature class. (Alternate Fall)

**ENGL 440 History of the English Language (3)**

Historical development of the English language; its internal formation as shaped by external political, social, and intellectual forces. Prerequisite: Junior or senior status or consent of instructor. (Fall)

**ENGL 451 Structure of the English Language (3)**

Study of modern English through the use of structural techniques and linguistic principles. Prerequisites: Junior or senior standing or consent of the instructor. (Fall)

**ENGL 455 Methods of Teaching Secondary English (4)**

Theory and practice of teaching English in the junior and senior high schools; current techniques, materials, and media for the teaching of composition, literature, and the English language. Includes 75 hours of field experience. Prerequisite: senior standing in the teacher certification program. (Spring)

**ENGL 470 18th Century British Literature (3)**

Conceptual framework of the Enlightenment in England's representative writers. Prerequisite: ENGL 254 or consent of instructor. (Alternate Fall)

**ENGL 471 British Romanticism (3)**

Representative works of writers attempting to discover a higher reality than that offered by materialism or rationalism. Prerequisite: ENGL 255 or consent of instructor. (Alternate Spring)

**ENGL 475 Victorian Literature (3)**

Representative works of post-Romantic British literature. Prerequisite: ENGL 255 or consent of instructor. (Alternate Fall)

**ENGL 478 20th Century British Literature (3)**

Major works from 20th Century British writers. Prerequisites: ENGL 255 or consent of instructor. (Alternate Spring)

**ENGL 491 Composition Theory and Practice (3)**

Theory and practice of composing as it applies to teaching English in the junior and senior high schools; historical context, contemporary theory, and current pedagogy in the field

of composition studies. Prerequisites: senior standing in teacher certification program or consent of instructor. (Spring)

**ENGL 492 Seminar in Writing (3)**

Capstone course with topics related to writing. Application of and emphasis on creating a portfolio, editorial work, professional résumé, publishing, and public forum. (Fall/Spring)

**ENGL 494 Seminar in Literature (3)**

Analysis of an important literary work or works, requiring students to interpret, criticize, and present research. Prerequisite: Senior standing or consent of instructor. (Fall/Spring)

**ENGL 495 Independent Study (1-3)**

**ENGL 496 Topics (1-3)**

**ENGL 497 Internship in Business, Technical, and Professional Communication (3)**

An opportunity to write, edit, and design business and technical documents in a professional setting. Projects may include reports, proposals, grants, manuals, brochures and newsletters. (Fall on demand)

## ENVIRONMENTAL SCIENCE AND TECHNOLOGY (ENVS)

---

**ENVS 101 Introduction to Environmental Science (3)**

Impact of pollution on the earth's environment and biota. The basic scientific approach to solving environmental problems and the impact of politics upon this approach will be examined. General environmental awareness and literacy will also be emphasized. (Fall/Spring)

✓ **ENVS 103 Field-Based Introduction to Environmental Science (2)**

✓ **ENVS 103L Field-Based Introduction to Environmental Science Laboratory (1)**

Examination of the effects of pollution and resource use on the earth's environment and biota. Scientific approaches to solving environmental problems. Emphasis placed on environmental awareness and critical thinking. Two lectures and one three-hour laboratory per week. (Fall)

**ENVS 110 Environmental Science and Technology I (3)**

Introduction to the source, characteristics, and concerns surrounding hazardous and radioactive materials in environmental systems, with an emphasis on developing environmental literacy. A two-day field trip on the second weekend of classes is required. Prerequisites: one year of high school chemistry and high school algebra or equivalent. (Fall/Spring)

**ENVS 196 Topics (1-3)**

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**ENVS 200 Field Methods in Environmental Science (1)****ENVS 200L Field Methods in Environmental Science Laboratory (1)**

Field methods and techniques in environmental science for both natural resource management and pollution control. Experiential learning will be emphasized. One one-hour lecture and one three-hour lab per week. Two Saturday labs may be required. Prerequisite: ENVS 110. (Fall)

**ENVS 210 Environmental Science and Technology II (3)**

Introduction to basic problems in environmental science. Topics include earth systems, human population dynamics, energy use and supplies, resource management, sustainable development, environmental economics, and environmental policy, both U.S. and international. Prerequisite: ENVS 110. (Spring)

**ENVS 212 Environmental Health and Safety (2)****ENVS 212L Environmental Health and Safety Laboratory (1)**

Examination of environmental health and safety issues, risk assessment, control strategies, and implementation. Includes basic toxicology, personal risk assessment, and meets 40-hour OSHA training requirements for working on hazardous waste sites. Requires development of a site safety plan and use of personal protective equipment. Two lectures and one two-hour laboratory per week. Prerequisites: ENVS 110; sophomore standing (AAS degree); senior standing (BS degree) or consent of instructor. (Alternate Spring)

**ENVS 214L OSHA Health and Safety Update (1)**

Update of the 40-hour OSHA hazardous waste site certification and includes the OSHA supervisor training certification for hazardous waste sites. Prerequisites: ENVS 212L. (On demand)

**ENVS 221 Science and Technology of Pollution Control (3)**

Scientific, engineering, and technical aspects of pollution control. Topics include chemical, physical, and radiological properties of pollutants; treatment of industrial wastewater, hazardous waste, radioactive waste, and air emissions; and approaches to pollution prevention. Prerequisites: ENVS 110 and CHEM 121 or CHEM 131. (Spring)

**ENVS 296 Topics (1-3)****ENVS 301 Environmental Project Management (2)**

Basic practices of effective project management, including proposal preparation, planning, scheduling, cost estimating, cost and progress tracking, and team building. Prerequisites: any one of the following: ENVS 221, ENVS 313, ENVS 331, ENVS 340. (Alternate Fall)

**ENVS 312 Soil Properties and Characterization (3)****ENVS 312L Soil Properties and Characterization Laboratory (1)**

General physical, chemical and biological properties of soils. The formation, characterization, and classification of soils

will be presented. Applied discussions concerning environmental problems. Three one-hour lectures and one three-hour laboratory per week. Prerequisites: CHEM 121, 122 or higher and one semester of biology or consent of instructor. (Fall)

**ENVS 313 Characterization of Contaminated Sites (3)****ENVS 313L Characterization of Contaminated Sites Laboratory (1)**

Examination of the process for characterizing contaminated sites. Topics include contaminant behavior in the environment, sampling strategies for soil and ground water, well construction, sample collection, field instrumentation, health and safety considerations, selection of analytical methods, quality assurance requirements, data interpretation, ASTM Phase I and Phase II assessments, and regulations that drive the characterization process. Prerequisites: ENVS 110, ENVS 200 and 200L, and STAT 200. (Alternate Fall)

**ENVS 315 Mined Land Rehabilitation (2)**

Principles and practices of mined land reclamation. Topics include mining techniques, disturbances caused by mining, regulations, closure of mine features, soil preparation, revegetation, and monitoring. Prerequisites: ENVS 455 or ENVS 312/312L (may be taken concurrently). (Alternate Spring)

**ENVS 331 Water Quality (3)****ENVS 331L Water Quality Laboratory (1)**

Examination of physical, chemical, and biological properties of aquatic systems and the effects of common pollutants. Three one-hour lectures and one three-hour laboratory per week. Two Saturday labs are required. Prerequisites: one semester of college biology, CHEM 121, 122 or higher, STAT 200, or consent of instructor. (Fall)

**ENVS 332 Introduction to Geographic Information Systems (2)****ENVS 332L Introduction to Geographic Information Systems Laboratory (1)**

Basic knowledge of the fundamentals of GIS with regard to theoretical, technical, and application issues. Prerequisites: GEOL 305 (may be taken concurrently), GEOL 111/111L or GEOL 113/113L (recommended). (Fall/Spring)

**ENVS 340 Air Quality and Pollution Control (3)**

Examination of the fundamental principles that govern air quality, its pollution, and its management. Students develop an air emissions inventory using mass balance and emission factors methodologies. Prerequisites: CHEM 121, 122 or higher, MATH 113, or consent of instructor. (Fall)

**ENVS 350 Ecology and Management of Shrublands and Grasslands (3)****ENVS 350L Ecology and Management of Shrublands and Grasslands Laboratory (1)**

Examination of ecological principles in determining the structure, function, and management of North American grasslands and shrublands. Three one-hour lectures and one three-hour lab per week. Two Saturday labs may be required. Prerequisite: STAT 200, and one semester of biology. (Fall)

- ENVS 375 Global Positioning Systems for GIS** (2)  
**ENVS 375L Global Positioning Systems for GIS Laboratory** (1)  
 GPS techniques and applications as they relate to GIS data collection. Two one-hour lectures and one two-hour laboratory per week. Prerequisites: GEOL 332 and 332L, or BIOL 332 and 332L, or ENVS 332 and ENVS 332L. (Spring)
- ENVS 395 Independent Study** (1-3)
- ENVS 396 Topics** (1-3)
- ENVS 410 Environmental Regulatory Compliance** (3)  
 Examination of regulatory requirements pertaining to air pollution, water pollution, hazardous materials, and radioactive materials. Additional topics include enforcement, compliance management systems, compliance auditing, and innovative approaches to regulation. Prerequisites: ENVS 221, and junior or senior standing. (Alternate Spring)
- ENVS 413 Environmental Fate and Transport of Contaminants** (3)  
 Physical, chemical, and biological factors influencing the persistence and migration of chemicals in the environment. Includes consideration of air, surface water, soil, and ground water. Emphasis on quantitative problem solving. Prerequisites: CHEM 121 or CHEM 132, and MATH 119 or higher. (Alternate Spring)
- ENVS 420 Advanced Environmental Sampling and Analytical Methods** (3)  
**ENVS 420L Advanced Environmental Sampling and Analytical Methods Laboratory** (1)  
 Survey of field sampling and analytical methods for study of environmental systems. Topics include sampling design, regulatory issues, quality assurance, quality control, data interpretation, and reporting. Three one-hour lectures and one three-hour laboratory per week. Prerequisites: CHEM 122 or 132, STAT 200 or consent of instructor. (Alternate Spring)
- ENVS 430 Laboratory Methods for Environmental Education** (3)  
 Study and application of methods used to understand environmental systems. Development of hands-on activities using simple materials and equipment which support interdisciplinary learning will be explored. Use of computer applications will also be examined. Lesson presentations and field trips will be required. Prerequisites: ENVS 110 and junior standing, or permission of instructor. (Fall)
- ENVS 431 Water and Wastewater Treatment** (3)  
 Examination of water and wastewater treatment processes including physical, chemical, and biological treatment technologies. Emphasis on unit process design and modeling. Prerequisite: ENVS 331. (Alternate Spring)
- ENVS 432 Advanced Geographic Information Systems** (2)  
**ENVS 432L Advanced Geographic Information Systems Laboratory** (1)  
 Emphasis on the set of analytical operations provided by this technology and the specific conditions, requirements, and processing considerations surrounding effective GIS modeling and decision making. Prerequisites: GEOL 332 and 332L, or BIOL 332 and 332L, or ENVS 332 and 332L, or GEOL 375 and 375L, or ENVS 375 and 375L. GEOL 321 and 321L recommended. (Fall)
- ENVS 433 Restoration of Aquatic Systems** (3)  
 Principles and practices of restoring the functions and values of streams, ponds, and wetlands. Addresses physical, chemical, and biological aspects of these aquatic systems. Prerequisites: ENVS 331 and ENVS 331L. (Alternate Spring)
- ENVS 455 Restoration Ecology** (3)  
 Examination of the principles and techniques for the restoration of community characteristics and ecosystem functions to disturbed lands. Prerequisites: STAT 200; and ENVS 350, or BIOL 211, or BIOL 405. (Spring)
- ENVS 492 Capstone in Environmental Science and Technology** (2)  
 Current environmental restoration/waste management issues. Refinement of students' communication skills. Intended to broaden students' perspectives and knowledge using guest speakers and class discussions. Requires independent study to be presented in class. Prerequisites: senior standing or consent of instructor. (Spring)
- ENVS 495 Independent Study** (1-3)
- ENVS 496 Topics** (1-3)
- ENVS 497 Structured Research** (1-3)  
 Research in environmental science under the direct guidance of a faculty member. Designed for junior and senior level students. Prerequisite: permission of instructor. (Fall/Spring/Summer)
- ENVS 499 Internship** (3-9)  
 Work experience on a job directly related to environmental restoration projects or hazardous waste management. Requires a term paper, oral presentation describing the experience and at least 225 contact hours. Prerequisites: junior or senior standing in the Environmental Restoration/Waste Management program or consent of instructor. (On demand)

## **FINANCE (FINA)**

---

- FINA 301 Managerial Finance** (3)  
 Acquisition, allocation, and management of funds within the business enterprise. Financial goals, funds flow, valuation,

capital budgeting, and financing strategies. Prerequisite: ACCT 202, STAT 214. (Fall/Spring)

**FINA 320 Fundamentals of Investments (3)**

Introduction to the theory and practices of investment valuation and management. Topics include risk and return, investor objectives and strategies, the types and characteristics of investment instruments, the process of buying and selling securities, investment valuation and yields, and portfolio management. Prerequisite: FINA 301. (Fall)

**FINA 395 Independent Study (1-3)**

**FINA 396 Topics (1-3)**

**FINA 401 Entrepreneurial Finance (3)**

The theory and practices of financing for the entrepreneur. Topics include cash forecasting and financial planning, cash collection and disbursements, short-term investing and financing, inventory management, accounts receivable management, credit and collections policy, and payables and accruals management. Prerequisite: FINA 301. (Fall)

**FINA 420 Security Analysis and Portfolio Management (3)**

Extension of the theory and practices of investment valuation and management. Topics include risk and return, market efficiency, economic and industry analysis, fundamental and technical analysis, bond analysis and management strategies, portfolio management and performance evaluation, and the characteristics and uses of options, rights, warrants, convertibles, and futures. Prerequisites: FINA 301 and FINA 320. (Spring)

**FINA 431 International Financial Management (3)**

The theory and practices of financial management in an international product and capital marketplace. Topics include the international flow of funds, exchange rate determinants and risk hedging, international arbitrage and interest rate parity, purchasing power parity and the international Fisher effect, instruments of international trade financing, multinational capital budgeting, multinational costs of capital, and multinational capital structure. Prerequisite: FINA 301. (Spring)

**FINA 451 Financial Management: Theory and Applications (3)**

Extension of the theory and practices of financial management using a case analysis approach. Topics include financial statement analysis, financial planning and forecasting, risk and return, capital budgeting, lease financing, cost of capital, capital structure, dividend policy, and risk management. Prerequisites: FINA 301; senior standing or consent of instructor. (Spring)

**FINA 495 Independent Study (1-3)**

**FINA 496 Topics (1-3)**

**FINA 500 Financial Strategy (3)**

Introduction and development of analysis of the financial aspects of a corporation using both theory and application.

Topics include capital markets, global economic factors that affect the corporation, capital asset pricing model, portfolio analysis and capital structure policy. (Fall)

## FINE ARTS (FINE)

**FINE 101 Man Creates (3)**

An interdisciplinary survey of human creative efforts as they relate to each other. Art, drama, and music are compared with similarities stressed. (Fall/Spring)

**FINE 395 Independent Study (1-3)**

**FINE 396 Topics (1-3)**

**FINE 495 Independent Study (1-3)**

**FINE 496 Topics (1-3)**

**FINE 499 Internship (8-15)**

Part or full-time work in various aspects of arts management. Sites may include galleries, musical, theatrical or other performing organizations, arts centers, or other situations that meet the instructor's approval. Half-time equals eight semester hours credit; full-time equals 15 semester hours credit. Prerequisite: junior standing in visual or performing arts. May also require selected courses in business, social science, etc. as appropriate to the internship sought. (Summer/Fall/Spring)

## FOREIGN LANGUAGES (FLAF, FLAG, FLAS, and FLAV)

### FRENCH

**FLAF 111 First-Year French I (3)**

**FLAF 112 First-Year French II (3)**

Introduction to the French language and culture. (Fall/Spring)

**FLAF 211 Second-Year French (3)**

**FLAF 212 Second-Year French II (3)**

Grammar review, vocabulary distinction, and readings in the French language. Prerequisites: two years of high school French, FLAF 111 and 112, or consent of instructor. (Fall/Spring on demand)

### GERMAN

**FLAG 111 First-Year German I (3)**

**FLAG 112 First-Year German II (3)**

Introduction to the German language. (Fall/Spring)

**FLAG 211 Second-Year German I (3)**

**FLAG 212 Second-Year German II (3)**

Grammar review, vocabulary distinction, and readings in the German language. Prerequisites: two years of high school German, FLAG 111 and 112, or consent of instructor. (Fall/Spring on demand)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**FLAG 290 Special Studies: German** (1-2)  
Study beyond the scope of the existing curriculum.

### SPANISH

**FLAS 111 First-Year Spanish I** (3)

**FLAS 112 First-Year Spanish II** (3)  
Basic competency in understanding, speaking, reading, and writing. (Fall/Spring)

**FLAS 114 Conversational Spanish I** (3)

**FLAS 115 Conversational Spanish II** (3)  
A beginning level class for adult students who wish to develop a basic vocabulary for speaking and understanding Spanish socially, on the job or south of the border. (Fall/Spring)

**FLAS 117 Career Spanish I** (3)

**FLAS 118 Career Spanish II** (3)  
For students with or without prior knowledge of Spanish who wish to speak and understand the vocabulary and phrases most frequently encountered in the fields of air transportation, agriculture, automotive services, business, child care, education, engineering, geology, hotel, motel, restaurant and resort management, law enforcement, pre-dentistry, nursing, pre-medicine, ranching, retail sales, social work, and travel, recreation, and hospitality management. (Fall/Spring)

**FLAS 211 Second-Year Spanish I** (3)

**FLAS 212 Second-Year Spanish II** (3)  
Reinforces and expands the four basic language skills developed in the first-year course and provides exposure to a wider variety of cultural materials and situations. Prerequisites: two years of high school Spanish, FLAS 111 and 112, or consent of instructor. (Fall/Spring)

**FLAS 301 Advanced Spanish Grammar** (3)

A thorough review and intensive practice of all the basics of Spanish grammar, including pronouns, verb tenses (both indicative and subjunctive), prepositions, and more. This course includes the writing of short compositions. Prerequisites: FLAS 212 or permission of instructor. (Fall)

**FLAS 302 Advanced Spanish Composition** (3)

Writing of well-structured and clearly-planned compositions of varying length. Provides the opportunity for students to do research in Spanish and prepares them for the writing of regular term papers in Spanish. Prerequisite: FLAS 301. (Spring)

**FLAS 311 History and Culture of Spain** (3)

History and culture of Spain from its early inhabitants through the twentieth century. Short written or oral reports in Spanish on a variety of topics are regularly assigned, with emphasis on improving speaking, reading, and writing skills. Prerequisites: FLAS 212 or permission of instructor. (Fall)

**FLAS 312 History and Culture of Latin America** (3)

History and culture of Latin American from its early inhabitants through the twentieth century. Short written or oral

reports in Spanish on a variety of topics are regularly assigned, with emphasis on improving speaking, reading, and writing skills. Prerequisites: FLAS 212 or consent of instructor. (Spring)

**FLAS 314 Advanced Spanish Conversation** (3)

Conversational practice in Spanish over a wide range of topics, working towards a greater command of Spanish grammar, vocabulary, and Hispanic culture. Prerequisite: FLAS 212. (Fall/Spring)

**FLAS 321 Introduction to the Literature of Spain** (3)

Introduction to the literature of Spain from the Middle Ages through the twentieth century, including excerpts from major works in poetry, narrative, and theater and by such authors as Cervantes, Perez-Galdos, and Garcia-Lorca. Prerequisites: FLAS 212 or permission of instructor. (Fall)

**FLAS 322 Introduction to the Literature of Latin America** (3)

Introduction to the literature of Latin America from the colonial period through the twentieth century, including excerpts from major works in poetry, narrative, and theatre and by such authors as Sor Juana, Borges, Neruda, and Garcia-Marquez. Prerequisites: FLAS 111, 112, 211, 212. (Spring)

**FLAS 411 Spanish and the Nature of Language** (3)

Introduction to the study of human language with Spanish as the primary source for description, exemplification and analysis. Prerequisites: FLAS 301, FLAS 302, and FLAS 314. (Fall)

**FLAS 421 Hispanic Poetry** (3)

Exploration of peninsular and/or Latin-American poetry, poets, and poetic forms. May include poetry written by Hispanic authors in the United States. Prerequisites: FLAS 212, 301, 302, 314, 321, and 322. (Alternate Fall)

**FLAS 422 Hispanic Prose** (3)

Exploration of peninsular and/or Latin-American prose, including the novel, short story, and/or essay. May include prose written by Hispanic authors in the United States. Prerequisites: FLAS 212, 301, 302, 314, 321, and 322. (Alternate Spring)

**FLAS 423 Hispanic Drama and Film** (3)

Insights into the role of the dramatic arts, their interplay with the visual arts, and their relationship to the subsequent developments in Hispanic cinema. Prerequisites: FLAS 212, 301, 302, 314, 321, and 322. (Alternate Fall)

**FLAS 431 Spanish for Medical & Social Services** (3)

Acquisition and refinement of superior linguistic and cross-cultural skills for health care and social services settings in which Spanish is the predominant language of communication. Prerequisites: FLAS 212, 301, 302, and 314. (Alternate Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**FLAS 433 Business Spanish (3)**  
 Exploration of the linguistic and cultural aspects of conducting business in a Hispanic context as well as developing the skills necessary for professional correspondence. Prerequisites: FLAS 212, 301, 302, 311, 312, and 314. (Fall)

**FLAS 434 Translation (3)**  
 Fundamentals of translation. Insights into and practice in the art of translation from its Biblical inception to the latest in machine-generated translation. Particular focus on the Spanish-English language pair. Prerequisites: FLAS 212, 301, 302, and 314. (Fall)

**FLAS 435 Interpreting (3)**  
 Fundamentals of interpreting. Exploration and enhancement of linguistic and cross-cultural skills in the various venues and modes of Spanish-English interpreting. Prerequisites: FLAS 212, 301, 302, and 314. (Spring)

**FLAS 441 Spanish Phonetics and Phonology (3)**  
 Theory and practice of Spanish phonetics and phonology, with focus on variation in the Hispanic world, Spanish and English in contrast, improvement of pronunciation, and enhancement of the ability to relate sounds to their spelling symbols. Prerequisites: FLAS 212, 301, 302, and 314. (Fall)

**FLAS 442 Methodology of Teaching Foreign Languages (3)**  
 Examination of current trends, methods, and techniques in foreign language pedagogy, including “Standards for Foreign Language Learning: Preparing for the 21st Century,” and “Proficiency Guidelines of the American Council on the Teaching of Foreign Languages (ACTFL).” Prerequisites: FLAS 212, 301, 302, 314, and 441. (Spring)

**FLAS 443 Spanish for Public School Teachers (3)**  
 Intensive oral/written practice of Spanish for communication and dialogue between teachers and the Spanish-speaking community. Prerequisites: FLAS 212, 301, 302, and 314. (Fall)

**FLAS 498 Spanish Senior Practicum (3)**  
 Faculty-coordinated internship consisting of work-oriented instruction in Spanish involving classroom or laboratory experiences and/or research. Prerequisites: FLAS 212, 301, 302, 311, 312, 321, and 322, plus at least nine credit hours completed in any one of the three Spanish major concentrations. (Spring)

**OTHER LANGUAGES**

**FLAV 290, 390 Special Studies In Foreign Languages (1-3)**  
 These courses are currently offered through Outreach: Ancient Greek, Latin, Advanced French, German, Spanish and other Classical and Modern Languages as permitted by interest and instructor availability.

**FLAV 395 Independent Study (1-3)**

**FLAV 396 Topics (1-3)**  
**FLAV 495 Independent Study (1-3)**  
**FLAV 496 Topics (1-3)**

**GEOGRAPHY (GEOG)**

---

✓ **GEOG 103 World Regional Geography (3)**  
 Survey of world geography by major world regions including an analysis of the physical elements, the inhabitants, and human occupancy patterns and an evaluation of the potential of each region for sustaining human populations. (Fall/Spring)

**GEOG 196 Topics (1-3)**

**GEOG 296 Topics (1-3)**

**GEOLOGY (GEOL)**

---

**GEOL 100 Survey of Earth Science (3)**  
 Physical makeup of the earth, its history, and geology. One field trip is required. Intended for students with majors other than one of the sciences. (Fall/Spring)

**GEOL 103 Weather and Climate (3)**  
 Non-mathematical introduction to elements of local and global weather: the atmosphere, cloud formation, precipitation, seasons, optical phenomena and violent storms. Students practice making 24-hour weather forecasts. (Fall/Spring)

**GEOL 104 Oceanography (3)**  
 Non-mathematical introduction to the scientific study of the ocean. While the course focuses on the hydrosphere subsystem of the Earth System, the atmosphere, cryosphere, lithosphere and biosphere interrelationship with the hydrosphere are also examined. (Spring)

**GEOL 105 Geology of Colorado (3)**  
 Introduction to minerals, rocks, geologic time scale and basic geologic terms, followed by geology of Colorado taught with the aid of movies and slides. A one-day field trip is required. (Fall/Spring)

**GEOL 107 Natural Hazards and Environmental Geology (3)**  
 Introduction to geologic aspects of our environment. Includes studies of natural hazards, global climate change, geologic resources and emphasizes human interactions with the environment. (Fall/Spring)

✓ **GEOL 111 Principles of Physical Geology (3)**

✓ **GEOL 111L Principles of Physical Geology Laboratory (1)**

Materials that make up the earth and surface and interior processes that interact to produce the present features of the earth. Laboratory: minerals, rocks, topographic maps, earth-

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.



quakes, and landforms. Three lectures and one two-hour laboratory per week. (Fall/Spring)

✓ **GEOL 112 Principles of Historical Geology** (3)

✓ **GEOL 112L Principles of Historical Geology Laboratory** (1)

Origin of the earth and life, changes recorded in rocks and fossils using the geologic time scale and techniques of dating to place events in sequence. Laboratory: topographic and geologic maps, hand samples of rocks, reconstruction exercises, and fossils to interpret regional and general geologic history. One all-day field trip is required. Four lectures and one two-hour laboratory per week. Prerequisite: GEOL 111/111L or GEOL 113/113L or consent of instructor. (Spring)

**GEOL 113 Field-Based Introduction to Physical Geology** (3)

**GEOL 113L Field-Based Introduction to Physical Geology Laboratory** (1)

Introduction to minerals, rocks, Earth structures, mountain building processes, and other elements of physical geology for science and non-science majors. A majority of class time will be spent in the field (including one Saturday) observing and mapping geological features of Western Colorado. There will be some indoor lectures and laboratory work. This course is recommended for prospective K-12 teachers. (Fall/Spring)

**GEOL 196 Topics** (1-3)

**GEOL 202 Introduction to Field Studies** (3)

Mapping of several small areas using plane table and alidade, transit, and pace and compass methods. Profiles, cross-sections, and maps are prepared. Three lectures per week and some unscheduled time is required to do mapping projects. Prerequisite: consent of instructor. (Spring)

**GEOL 250 Environmental Geology** (3)

Geologic aspects of environmental problems involving natural processes and anthropogenic activities. Studies include landslides, earthquakes, flooding, coastal erosion, and land subsidence as well as environmental impacts of mineral resource extraction, soil erosion, fossil fuel consumption, and climate change. Prerequisites: GEOL 100 or 104 or 105 or 111 or 113. (Spring)

**GEOL 296 Topics** (1-3)

**GEOL 301 Structural Geology** (3)

**GEOL 301L Structural Geology Laboratory** (1)

Stress and strain in rock bodies. Description and occurrence of both brittle and ductile rock structures. Laboratory: stereographic and graphical solution of structural problems, the study of maps and cross sections, and some field problems. Three lectures and one two-hour laboratory per week. Four one-day field trips are taken. Prerequisites: GEOL 111/111L or 113/113L, and MATH 130. (Fall)

**GEOL 305 Cartography for GIS** (1)

Introduction to maps as tools for communication and analysis of locationally-related information. (Fall/Spring)

**GEOL 321 Introduction to Remote Sensing** (2)

**GEOL 321L Introduction to Remote Sensing Laboratory** (1)

Remote sensing systems and applications; characteristics of photographs, scanner and radar imagery interpretation. Two one-hour lectures and one two-hour laboratory per week. Prerequisites: GEOL 111/111L or GEOL 113/113L, and GEOL 202. (Spring)

**GEOL 325 Introduction to Engineering Geology** (3)

Geologic principles applied to construction problems; case histories of major projects. Field trips and term project required. Prerequisite: GEOL 111/111L or GEOL 113/113L or consent of instructor. (On demand)

**GEOL 331 Crystallography and Mineralogy** (3)

**GEOL 331L Crystallography and Mineralogy Laboratory** (1)

Morphology and classification of crystals; chemistry and genesis of minerals. Laboratory: identification of crystal systems and class, hand specimen identification of minerals, some X-ray diffraction work. Three lectures and one two-hour laboratory per week. Prerequisite: CHEM 131 or consent of instructor. (Fall)

**GEOL 332 Introduction to Geographic Information Systems** (2)

**GEOL 332L Introduction to Geographic Information Systems Laboratory** (1)

Basic knowledge of the fundamentals of GIS with regard to theoretical, technical, and application issues. Prerequisites: GEOL 305 (maybe be taken concurrently), GEOL 111/111L or GEOL 113/113L (recommended). (Fall/Spring)

**GEOL 333 Geology of the Canyon Country** (1)

Three two-hour evening lectures with films and slides used to preview geology of the Colorado Plateau. A five-day field trip to the selected sites is conducted during spring break. Prerequisites: GEOL 100, 105 or 112. (Spring)

**GEOL 340 Igneous and Metamorphic Petrology** (3)

**GEOL 340L Igneous and Metamorphic Petrology Laboratory** (1)

Origin, composition and classification of igneous and metamorphic rocks. Laboratory: identification of igneous and metamorphic rocks in hand specimens. Three lectures and one two-hour laboratory per week. Prerequisite: GEOL 331. (Spring)

**GEOL 351 Applied Geochemistry** (3)

Geochemistry and its relationship to weathering and soils, geochemical surveys and prospecting techniques, reactions of contaminants with earth materials, and methods of reducing environmental degradation. Prerequisites: CHEM 121/121L,

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

CHEM 122/122L, and GEOL 111/111L or GEOL 113/113L. (On demand)

**GEOL 355 Basic Hydrology (3)**  
Introduction to physical hydrologic processes including precipitation, evapotranspiration, infiltration, runoff and subsurface flow. Examination of hydrologic modeling, problem-solving, and monitoring techniques as well as water resource management issues at both local and global scales. Prerequisite: MATH 113, or MATH 151 or consent of instructor. (Fall)

**GEOL 359 Survey of Energy-Related Natural Resources (3)**  
Origin, location, and economics of non-metallic geologic commodities, including phosphates, evaporites, oil, gas, coal, and sedimentary uranium deposits. Students give oral and written reports on two localities. Prerequisites: GEOL 111/111L or GEOL 113/113L; CHEM 131/131L, or consent of instructor. (Alternate Spring)

**GEOL 361 Survey of Mineral-Related Natural Resources (3)**  
The genesis, description, and exploitation of metallic and non-metallic natural resources consumed by modern society, such as base-metals, precious metals and gems, aggregates and construction materials, fertilizers, and chemical-industrial commodities. Environmental, economic, and socio-political issues associated with utilization of these resources will also be addressed. At least one field trip to a local resource area will be arranged. Three lectures per week. Prerequisites: GEOL 111/111L or GEOL 113/113L, and CHEM 131, 131L, or consent of instructor. (Alternate Spring)

**GEOL 375 Global Positioning Systems for GIS (2)**  
**GEOL 375L Global Positioning Systems for GIS Laboratory (1)**  
GPS techniques and applications as they relate to GIS data collection. Prerequisites: GEOL 332 and 332L, or BIOL 332 and 332L, or ENVS 332 and 332L. (Fall/Spring)

**GEOL 380 Field Studies (6)**  
Techniques used by the field geologist including section measuring, use of aerial photographs, plane table and alidade, and collection of samples. Data used to prepare geologic maps and reports. Students will camp out approximately three weeks during this course. Five eight-hour days per week. Prerequisites: GEOL 111 or 113, 112, 301, 331, 340. (Summer, alternate years)

**GEOL 390 Computer Applications in Geology (3)**  
Quantitative methods of geologic data analysis with the data manipulated on the computer. Methodical approach with limited theoretical emphasis; statistical concepts; special programs for graphical presentation and analysis. Three lectures per week and computer laboratory time to complete exercises are required. Prerequisite: GEOL 111/111L or GEOL

113/113L, and GEOL 112/112L, and STAT 200 or consent of instructor. (Spring)

**GEOL 395 Independent Study (1-3)**

**GEOL 396 Topics (1-3)**

**GEOL 402 Applications of Geomorphology (3)**

**GEOL 402L Applications of Geomorphology Laboratory (1)**

Knowledge of landform genesis and shaping processes is applied to solve modern problems with emphasis on local soils, slopes, rivers, erosional surfaces, and structural framework. Laboratory and field studies used to explore frost, running water, slope movement, ground water, wind, and glaciers which have affected the local environment. Practical techniques of measurement and interpretation, including statistical and computer techniques, used to produce models of landscape development. A term project must be completed. Two major field trips are required. Four lectures and one two-hour laboratory per week. Prerequisite: consent of instructor. (Fall)

**GEOL 404 Geophysics (3)**

**GEOL 404L Geophysics Laboratory (1)**

Exploration for mineral and petroleum and preliminary investigation of sites for engineering and environmental projects with emphasis on refraction and reflection seismic, gravity, magnetic, electrical, electromagnetic ground-penetrating radar and radioactive methods. Laboratory: interpretation of data, computer applications, and field trips. Four lectures and one two-hour laboratory per week. Prerequisites: GEOL 111/111L or GEOL 113/113L, and GEOL 112/112L, and PHYS 112, (calculus is recommended but not required) or consent of instructor. (Spring)

**GEOL 405 Solid Earth Geophysics (3)**

Classical physics applied to the study of the earth with emphasis on the origin of the earth, its gravitational, geomagnetic, and geothermal characteristics, seismicity, the dynamics of the earth's crust, plate tectonics, and continental drift. One field trip required. Prerequisites: GEOL 404 or consent of instructor. (On demand)

**GEOL 411 Paleontology (3)**

**GEOL 411L Paleontology Laboratory (1)**

Taxonomy, morphology, ecology, and geologic range of most groups of invertebrate fossils. Laboratory: field identifications of guide fossils. A one-day field trip is required. Two lectures and one two-hour laboratory per week. Prerequisite: beginning Biology course or consent of instructor. (Spring)

**GEOL 415 Introduction to Ground Water (3)**

**GEOL 415L Introduction to Ground Water Laboratory (1)**

Relationships of ground water to other water sources, hydrologic cycle, water balance, hydrologic characteristics of rocks, hydraulics and equations defining flow, ground water quality, and contamination, exploration and measurement

techniques (including geophysical procedures), state and federal regulations, and computer modeling. Laboratory: Acquisition, analysis, and interpretation of ground water data. Prerequisites: GEOL 111/111L or GEOL 113/113L, and MATH 151, and at least high school level biology, chemistry and physics. Three lectures and one two-hour laboratory per week. (Spring)

**GEOL 432 Advanced Geographic Information Systems (2)**

**GEOL 432L Advanced Geographic Information Systems Laboratory (1)**

Emphasis on the set of analytical operations provided by this technology and the specific conditions, requirements, and processing considerations surrounding effective GIS modeling and decision making. Prerequisites: GEOL 332 and 332L, or BIOL 332 and 332L, or ENVS 332 and 332L, or GEOL 375 and 375L, or ENVS 375 and 375L. GEOL 321 and 321L recommended. (Fall)

**GEOL 444 Stratigraphy and Sedimentation (3)**

**GEOL 444L Stratigraphy and Sedimentation Laboratory (1)**

Sequences of sedimentary rocks with emphasis on rock classification and the correlation between the local section and nearby areas, including the Grand Canyon. Sedimentary environments are stressed. Laboratory: field identification of sedimentary rocks using laboratory samples and local outcrops. Two one-day field trips are taken. Three lectures and one two-hour laboratory per week. (Fall)

**GEOL 455 River Dynamics (3)**

Introduction to river forms and processes, including basic open-channel hydraulics, sediment transport, fluvial geomorphology and human interactions with river systems. Weekend field trips will be required. Prerequisites: MATH 151 or consent of instructor. (Spring)

**GEOL 476 Optical Mineralogy and Petrography (2)**

**GEOL 476L Optical Mineralogy and Petrography Laboratory (2)**

Theories and principles of optical mineralogy and the microscope descriptions of rocks are applied to their classifications. Laboratory: study of thin sections. Two lectures and two two-hour laboratories per week. Prerequisites: GEOL 331, 340, PHYS 112. (On demand)

**GEOL 490 Seminar (3)**

Well logging techniques and characteristics of well logs; recent developments, concepts, and theories relating to petroleum, mineral deposits, tectonics; and other topics of current interest are discussed by students in a seminar setting. Prerequisites: upper division standing and consent of instructor. (Spring)

**GEOL 495 Independent Study (1-3)**

**GEOL 496 Topics (1-3)**

**GEOL 497 Structured Research (1-3)**

Geological research under the direct guidance of a faculty member. Designed for junior and senior level students. Prerequisite: permission of instructor. (Fall/Spring/Summer)

**GRAPHIC ART (GRAR)**

---

**GRAR 215 Graphic Design I (3)**

Basic use and operation of graphics computer, exclusively Macintosh, with focus on terminology, hardware, peripheral devices, system management, and software (systems and applications). Including establishment of operation files, job information files, information capture and placement, and maintenance. Prerequisites: ARTE 101, 102, 151. (Fall)

**GRAR 221 Graphic Design II (3)**

Principles of design and layout techniques, including thumbnail, rough, and comprehensive layouts: work planning and preparation of artwork with focus on computer and hand generated images. Prerequisites: ARTE 101, 102, 151; GRAR 215. (Spring)

**GRAR 296 Topics (1-3)**

**GRAR 301 Computer Illustration (3)**

Focus on developing knowledge and skills to produce computer generated artwork, both black/white and color, including color separation camera ready art using software application programs primarily on Macintosh computers. Prerequisite: GRAR 215, 221. (Fall)

**GRAR 320 Letterforms and Typography (3)**

Study of letterforms and typography including terminology, type style identification and design, use of type within a design, composition, copyfitting, and basic principles of pattern and spatial design. Prerequisite: GRAR 221. (Fall)

**GRAR 337 Applied Illustration (3)**

Using both computer and hand generated images, the focus will be on creating images that will solve client communications problems, including story, advertising, and specialty illustrations. Prerequisite: GRAR 221, ARTE 251 or consent of instructor. (Spring)

**GRAR 338 Advertising Design I (3)**

Exploration of the various graphic communication applications common to the promotion of products and services, including brochures, posters, mailers, package design, and other items designed for print. Emphasis will be placed on design processes, prepress print production and the history of advertising. Prerequisite: GRAR 221, 301, 320. (Spring)

**GRAR 339 Advertising Design II (3)**

Advanced exploration of the various graphic communication applications common to the promotion of products and services, including brochures, posters, mailers, package design, and other items designed for print. Emphasis will be placed on design processes, prepress print production and the histo-

ry of advertising. Prerequisites: GRAR 301, 320, 338. (Spring)

**GRAR 395 Independent Study** (1-3)

**GRAR 396 Topics** (1-3)

**GRAR 405 Web Site Design** (3)

Creation and development of well-designed and functional Web pages/sites to accommodate clients' promotional and business needs. Topics covered include software, creation of graphics, publishing, design theory for the Web, typography and promotion. Prerequisites: GRAR 215, GRAR 221, GRAR 301, GRAR 302, and GRAR 338, or consent of the instructor. (Fall)

**GRAR 425 Animation** (3)

Investigation of fundamental principles of movement and timing when animating characters or objects. Exploration of visual expression through the use of sequential images, progressing from simple to complex motion. Experience with traditional and digital animation processes resulting in production of a complete animation. Prerequisite: GRAR 405. (Spring)

**GRAR 437 Applied Illustration II** (3)

Advanced study using both computer and hand generated images, the focus will be on creating images that will solve client communications problems, advertising, and specialty illustrations. Prerequisite: GRAR 337. (Spring)

**GRAR 450 Corporate Design** (3)

Exploration of visual communication and symbols designed specifically for corporate and organization identity. Examples include logos, logotypes, business stationery, forms, annual reports, advertising and signage. Emphasis will be placed on the process of design, prepress print production and the history of corporate design. Prerequisite: GRAR 338. (Fall)

**GRAR 493 Portfolio Construction** (3)

Assigned designed problems and development of items for assembly into a portfolio to be used as employment material. Prerequisite: GRAR 337, GRAR 338, GRAR 450. (Spring)

**GRAR 495 Independent Study** (1-3)

**GRAR 496 Topics** (1-3)

**GRAR 499 Internship** (3)

Placement in an agency or corporate department to provide an enhanced transition from the classroom to the work setting through first-hand experience. The student is expected to complete 135 clock hours. Prerequisite: GRAR 450. (Fall/Spring/Summer)

## **HISTORY (HIST)**

✓ **HIST 101, ✓ HIST 102 Western Civilizations** (3,3)

Political, social, economic, and cultural history of Western mankind from ancient times to modern times. (Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

✓ **HIST 131, ✓ HIST 132 United States History** (3,3)  
History of the United States from Colonial period to modern times. (Fall/Spring)

**HIST 137 Latinos in the United States** (3)

Survey of historical issues affecting people of Latino heritage in the United States. (On demand)

**HIST 225 History of Colorado** (3)

History of the state from pre-historic to modern times. (Spring)

**HIST 296 Topics** (1-3)

**HIST 301 History of England Since 1485** (3)

England, Great Britain and the Empire/Commonwealth from the first Tudor to the present. Prerequisites: HIST 101, 102. (On demand)

**HIST 302 History of Modern France** (3)

France from the Revolution of 1789 to the present. Prerequisite: HIST 102 or consent of instructor. (Alternate Spring)

**HIST 303 History of Modern Germany** (3)

Origins and development of the modern Germany nation-state from 1860 to the present. Prerequisite: HIST 102 or consent of instructor. (Alternate Fall)

**HIST 306 History of South and Southeast Asia** (3)

History of those areas of Asia within the influence of Indic Civilization, with emphasis on the roles of Hindu, Buddhist, and Muslim religions. Prerequisites: HIST 101, 102. (On demand)

**HIST 310 Latin American Civilization** (3)

Historical development of Latin America from pre-Columbian times to the present. Prerequisite: HIST 102 or consent of the instructor. (Alternate Fall)

**HIST 315 American Indian History** (3)

American Indian history from pre-Columbian America to the present with an emphasis on federal Indian policy. Case studies will also address the adaptation of Indian people to changing social and economic conditions. Prerequisites: HIST 131 and 132. (On demand)

**HIST 316 American Slavery** (3)

Exploration of the development of race slavery and an examination of slave life in colonial North America and the United States from Colonization through reconstruction. Prerequisite: HIST 131. (On demand)

**HIST 320 The American West** (3)

The American West from pre-Columbian times through the Twentieth Century with special emphasis on the diverse cultures and ecological factors that have defined the region. Prerequisites: HIST 131, 132, or consent of instructor. (On demand)

- HIST 330 History of 19th Century Europe (3)**  
Political, social, intellectual, and diplomatic forces operating in Europe between the French Revolution and World War I. Prerequisites: HIST 101, 102. (Spring)
- HIST 331 The 20th Century (3)**  
Investigation of the development of our modern world since World War I with emphasis on Europe and its role in that process. Prerequisites: HIST 101, 102 or consent of the instructor. (Fall)
- HIST 332 History of Modern Warfare (3)**  
War, its causes, consequences, and impact on history from the 18th century to the present. Prerequisites: HIST 101, 102. (Fall)
- HIST 340 History of the Islamic World (3)**  
The origins, spread, and influence of the Islamic world, including the Middle East and North Africa with emphasis on its position in modern world affairs. Prerequisites: HIST 101, 102. (Spring)
- HIST 342 The Early American Republic (3)**  
The social, cultural, intellectual and political developments in America from 1783-1850. Prerequisites: HIST 131, 132, or consent of instructor. (Alternate Spring)
- HIST 344 The Age of Industry in America (3)**  
The social, intellectual, and political events in the United States from the end of the Civil War to the beginning of the Great Depression. Prerequisites: HIST 131, 132, or consent of instructor. (Alternate Fall)
- HIST 346 History of Modern America (3)**  
The social, intellectual, and political events in the United States from the Great Depression to the present. Prerequisites: HIST 131, 132, or consent of instructor. (Alternate Fall)
- HIST 347 Global America: 1970 – 2000 (3)**  
The political and social implications of America as the dominant global power, from 1970 to the present. Prerequisite: HIST 132. (Alternate Spring)
- HIST 350 Renaissance and Reformation (3)**  
Examines the political and social context of the Renaissance and Reformation. Prerequisites: HIST 101. (On demand)
- HIST 355 Ancient and Medieval Cities (3)**  
The development (physical, social, political) of cities in the ancient and medieval periods and their role in early western civilization. Prerequisite: HIST 101. (Alternate Fall)
- HIST 360 Medieval Europe (3)**  
Examines the political, social, and religious institutions of Medieval Europe (300-1475). Prerequisites: HIST 101, 102. (Alternate Spring)
- HIST 370 United States Women's History I (3)**  
Historical survey of cultural, economic, and political contributions of American women from colonization to Reconstruction. Prerequisites: HIST 131, 132. (Alternate Fall)
- HIST 371 United States Women's History II (3)**  
Historical survey of cultural, economic, and political contributions of American women from Reconstruction to the present. Prerequisites: HIST 131, 132. (Alternate Spring)
- HIST 375 American Sport History (3)**  
An examination of American society from the Colonial era to the present through the lens of sport. Prerequisite: HIST 131 or 132. Both courses are recommended. (Alternate Fall)
- HIST 395 Independent Study (1-3)**
- HIST 396 Topics (1-3)**
- HIST 400 The Soviet Union and Eastern Europe (3)**  
Imperial Russia, the Soviet Union, and Eastern Europe from 1900 to the present. Prerequisite: HIST 101, 102 or consent of instructor. (Spring)
- HIST 401 East Asia: The Formative Period (3)**  
China, Japan, Korea, and Vietnam before the coming of the West. Prerequisites: HIST 101, 102. (Fall)
- HIST 403 East Asia and the Modern World (3)**  
China, Japan, Korea, and Vietnam since 1840. Prerequisite: consent of instructor. Prerequisites: HIST 101, 102. (Spring)
- HIST 404 Introduction to Historical Research (3)**  
History-specific research with emphasis on utilization of primary documents and practice in conducting research and reporting results. Prerequisite: twelve hours college history courses or consent of instructor. (Fall/Spring)
- HIST 405 Introduction to Public History (3)**  
Exploration of non-academic historical skills employed in museum work, archival management, and positions with historical societies and historic preservation agencies. Career opportunities will be examined. Prerequisites: HIST 131, 132, or consent of instructor. (On demand)
- HIST 406 History of the African Continent (3)**  
The development of African cultures from the ancient to modern periods, with particular attention to interaction with non-African cultures. Prerequisites: HIST 101 and HIST 102, or consent of instructor. (Alternate Spring)
- HIST 410 Environmental History of the U.S. (3)**  
The evolution of public attitudes and governmental policies and practices relative to the wilderness, natural resource development, and the natural environment from colonial times to the present. Prerequisites: HIST 131, 132, or consent of instructor. (Spring)
- HIST 415 Colonial America (3)**  
Examines the development of colonial society in North America and the tensions that arose between Native American, European, and African people and cultures. Prerequisite: HIST 131. (Alternate Spring)

**HIST 416 The American Revolution (3)**  
An overview of and perspectives on the causes and outcomes of the American Revolution. Prerequisite: HIST 131. (Alternate Fall)

**HIST 420 Civil War and Reconstruction (3)**  
The causes and outcomes of the American Civil War and Reconstruction periods. Prerequisites: HIST 131, 132, or consent of instructor. (Spring)

**HIST 430 The Ancient Mediterranean World (3)**  
The Mediterranean world from pre-classical times to the fall of the Roman Empire. Prerequisites: HIST 101, 102, or consent of instructor. (Fall)

**HIST 435 Classical Archaeology (3)**  
Examines the archaeological evidence for some of the ancient Mediterranean civilizations and how the historian uses archaeology to better understand the ancient world. Prerequisite: HIST 101. (Alternate Fall)

**HIST 440 Early and Medieval Christianity (3)**  
Examines the historical development of Christianity through the middle ages, focusing on the social (marriage and family) and political (kingship) consequences of Christianity. Prerequisites: HIST 101. (Alternate Spring)

**HIST 495 Independent Study (1-3)**

**HIST 496 Topics (1-3)**

**HIST 499 History Internship (1-3)**  
Experience with historical work in settings outside the college community, including museums, archives, and local, state, and federal agencies. Instructor permission required and internship must be arranged during the semester prior to the field experience. Prerequisites: Nine upper division hours in history and junior status. (Fall, Spring and Summer)

## **HUMAN PERFORMANCE AND WELLNESS (HPWA and HPWE)**

### **ACADEMIC**

**HPWA 100 Health and Wellness (1)**  
The presentation of information concerning the benefits, positive effects, assessment, and implementation of healthy life styles. (Fall/Spring)

**HPWA 200 History and Philosophy of Human Performance (3)**  
Discusses the breadth, scope, and nature of the profession. Orientation to the history and philosophy of human performance and the factors that influence its evolution. Special consideration is given to the history of sport from antiquity to the present, particularly the Olympic Games. (Fall/Spring)

The following series of courses is designed to acquaint prospective physical educators and recreators with the skills, instructional procedures, techniques, progressions and officiating of selected sports normally taught in the public schools and played in recreational facilities.

**HPWA 211 Methods of Lifetime Activities (3)**  
Prerequisite: HPWA 200 or consent of instructor. (Fall)

**HPWA 212 Methods of Individual Activities (3)**  
Prerequisite: HPWA 200 or consent of instructor. (Fall)

**HPWA 213 Applications of Physical Fitness and Exercise Prescription (3)**  
Prerequisite: HPWA 100. (Fall/Spring)

**HPWA 214 Methods of Team Activities (3)**  
Prerequisite: HPWA 200 or consent of instructor. (Spring)

**HPWA 220 Methods of Dance and Gymnastics (3)**  
(Alternate fall)

**HPWA 230 Methods of Aerobics Training (1)**  
(Alternate Spring)

**HPWA 234 Prevention and Care of Athletic Injuries (3)**  
Procedures and techniques involved in preventing and treating common injuries associated with competitive athletics. (Fall/Spring)

**HPWA 250 Lifeguard Training (3)**  
An American Red Cross course leading to certification of qualified students. (Spring)

**HPWA 251 Water Safety Instructors Course (3)**  
An American Red Cross course leading to certification of qualified students. (Spring)

**HPWA 256 Creative Play/Literacy (3)**  
Acquaints students with instructional content, including proper content, progression, and literary integration that is appropriate for elementary physical education. (Spring)

**HPWA 260 School and Personal Health (3)**  
School and personal health problems with emphasis on the development of proper health attitudes and practices, and application of health knowledge and practice in school situations. Prerequisite: HPWA 100. (Fall/Spring)

**HPWA 265 First Aid/CPR for the Professional Rescuer (3)**  
Knowledge and skills required to meet the needs of first aid and CPR situations that lead to obtaining valid First Aid and CPR for the Professional Rescuer cards. (Fall/Spring)

**HPWA 273 Upper Body Injury Assessment (3)**  
Content of this course addresses evaluation techniques and care for athletic injuries to the head, face, and upper extremities. The student must integrate anatomical structures, physiology principles, and evaluative techniques to provide a basis for critical decision-making in an injury management

environment. Prerequisite: HPWA 234. (Fall/Spring on demand)

**HPWA 274 Lower Body Injury Assessment (3)**

Content of this course addresses evaluation techniques and care for athletic injuries to the trunk and lower extremities. The student must integrate anatomical structures, physiology principles, and evaluative techniques to provide a basis for critical decision-making in an injury management environment. Prerequisite: HPWA 234. (Fall/Spring on demand)

**HPWA 297 Practicum (1-2)**

Supervised assistantship with physical educators or recreation practitioners. (Fall/Spring)

**HPWA 300 Teaching/Technology Laboratory (3)**

Covers the technology utilized in a K-12 physical education setting to support instruction and enhance student learning. Students will also observe and participate in K-12 physical education classes through a 60-hour laboratory-based program. Prerequisites: HPWA 200 and enrollment in the Teacher Education program. (Spring)

**HPWA 301 Tests and Measurements in Human Performance and Wellness (3)**

Modern testing and evaluation methods applied to the field of HPW, including the areas of biological, neuromuscular, cognitive, social and affective development. The selection of appropriate measuring devices and their interpretation is an integral part of the course. Prerequisite: HPWA 200. (Fall/Spring)

**HPWA 303 Physiology of Exercise (3)**

**HPWA 303L Physiology of Exercise Laboratory (1)**

The effects of various types of exercise upon human body structure and function. Three one-hour lectures and one two-hour laboratory per week. Prerequisites: HPWA 213 and BIOL 209, 209L. (Fall/Spring)

**HPWA 307 Philosophy and Psychology of Coaching (3)**

Fundamental philosophical and psychological principles related to coaching competitive athletic teams. (Alternate spring)

**HPWA 309 Anatomical Kinesiology (3)**

A comprehensive study of the musculature of the human body. Analysis of joint movement and muscular involvement in various physical activities will be emphasized in this course. Corequisite: HPWA 309L. Prerequisites: BIOL 209, 209L, HPWA 200. (Fall/Spring)

**HPWA 309L Anatomical Kinesiology Laboratory (1)**

A comprehensive study of the musculature of the human body. Analysis of joint movement, muscular involvement, and the application of mechanics, physics, mathematics, and motion analysis in various physical activities. One two-hour laboratory per week. Corerequisite: HPWA 309. (Fall/Spring)

**HPWA 320 Methods of Teaching Physical Education in Elementary Schools (3)**

Information for classroom and physical education teachers that examines the teaching process, classroom management, and physical education content that is developmentally appropriate for elementary school education. (Alternate Fall/Spring)

**HPWA 333 Community Health (3)**

Introduction to the areas of epidemiology, disease prevention and control, environmental health, health care, injury prevention, and safety education. (On Demand)

**HPWA 335 Sport in Society (3)**

The sociology of sport, covering the cultural traditions, social values, and psychosocial experiences of sport from antiquity to today. (Alternate Spring)

**HPWA 342 Sport Law and Ethics (3)**

The legal duties, responsibilities, rights, liability, and ethics involved in sport. (Alternate Fall)

**HPWA 345 Survey of Economics and Finance in Sport (3)**

The economic, financial, and managerial accounting concepts for sport. Prerequisite: ECON 201. (Alternate Fall)

**HPWA 360 Motor Learning (3)**

Foundations of motor learning and the relation of motor performance to other aspects of behavior. Prerequisite: HPWA 200. (Fall)

**HPWA 365 Advanced First Aid (3)**

Advanced knowledge and skills required to meet the needs of most emergency situations. Includes monitoring vital signs, CPR for professional rescuer, childbirth, triage, and transport of victims. (Spring)

**HPWA 368 Clinical Experiences in Athletic Training I (2)**

Athletic training clinical experiences with concentration on injury care. Prerequisite: Acceptance into Athletic Training Education Program. (Fall)

**HPWA 378 Clinical Experiences in Athletic Training II (2)**

Athletic training clinical experiences with concentration on injury prevention, equipment fitting, and construction of protective devices. Prerequisite: HPWA 368. (Spring)

**HPWA 380 Adapted Physical Education (3)**

Study of physical activity, its modification and adaptation for the individuals with disabilities. Prerequisites: HPWA 200 or consent of instructor. (Fall)

**HPWA 395 Independent Study (1-3)**

**HPWA 396 Topics (1-3)**

- HPWA 401 Organization/Administration/Legal Considerations in P.E. and Sports** (3)  
Organizational structures, administrative techniques, and legal considerations in physical education and sports. (Fall/Spring)
- HPWA 402 Sport Marketing** (3)  
The application of the principles of promotion and marketing to the sport and fitness industry including the areas of professional sports, corporate fitness, college/high school athletics, clubs and resorts, and others. Prerequisite: MARK 231. (Alternate Spring)
- HPWA 404 Preparation for ACSM Health Fitness Instructor Certification** (3)  
Emphasis in fitness testing, designing and executing an exercise program, leading exercise, organizing and assisting with operation of fitness facilities. In addition, consultation practices for lifestyle change through multiple intervention strategies will be covered. Prerequisites: HPWA 303, 303L. (Spring)
- HPWA 405 Sports Nutrition** (3)  
In-depth study of macronutrient metabolism as it relates to sport. Practical consideration in the use or non-use of carbohydrate supplements, vitamins, and/or other ergogenic aids. Three one-hour lectures per week. Prerequisites: HPWA 303, HPWA 303L. (Fall)
- HPWA 406 Governance and Communication in Sport** (3)  
The laws and rules governing various sport organizations from interscholastic to professional sport as well as the major means of sport communication. (Alternate Fall)
- HPWA 408 Methods of Teaching Physical Education in Secondary Schools** (3)  
Instructional strategies on a practical application level for prospective secondary physical education teachers preparatory to entry into student teaching. Field experiences are required to supplement lectures and discussions. Prerequisites: completion of at least half of all physical education course-work required for certification. (Fall)
- HPWA 410 Rehabilitative Exercises** (3)  
Review of the theoretical and scientific basis for, and the practical use of, traditional and recently emerging rehabilitative techniques utilized in the rehabilitation of acute, post acute, and chronic musculoskeletal injuries. Prerequisite: HPWA 234. (Spring)
- HPWA 411 Worksite Health Promotion** (3)  
Covers worksite health promotion: its description, planning, implementation, marketing, and evaluation. Prerequisite: HPWA 401. (On Demand)
- HPWA 415 Physical Activity and Aging** (3)  
The study of the dynamic relationship between physical activity and the aging process. Course focuses on the impact of physical activity on the physiological, psychological, and

- social well-being of older adults. Prerequisites: HPWA 303, 303L. (Spring)
- HPWA 420 Therapeutic Modalities** (3)  
Review of the theoretical and scientific basis for, and the practical use of, contemporary therapeutic modalities and techniques utilized in the treatment of acute and chronic musculoskeletal injuries. Prerequisite: HPWA 234. (Fall)
- HPWA 430 Medical Conditions and Pharmacology in Sports** (3)  
An overview of the effects on physical activity resulting from the pre-existence of selected medical conditions and the use of pharmacological agents. (Spring)
- HPWA 468 Clinical Experiences in Athletic Training III** (2)  
Athletic training clinical experiences with concentration on injury evaluation and rehabilitation. Prerequisites: HPWA 272 and 378. (Fall)
- HPWA 478 Clinical Experiences in Athletic Training IV** (2)  
Athletic training clinical experiences with concentrations on administrative duties and education. Prerequisites: HPWA 378, HPWA 468. (Spring)
- HPWA 480 Special Populations – Psychomotor Disabilities and Implications** (3)  
Designed to provide student with advanced knowledge concerning the relationship between disabilities and physical activity. A multidisciplinary approach to the etiology and functional implications of psychomotor disabilities. Prerequisites: HPWA 303 and 303L. (Spring)
- HPWA 487 Structured Research** (1-3)  
A formal research project undertaken with the guidance of a faculty member. The results will be presented as a formal presentation and/or paper. Prerequisites: HPWA 303, 303L. (On demand)
- HPWA 494 Senior Seminar** (1)  
Opportunity for senior students to contribute and participate in discussion and research of current issues. (Fall/Spring)
- HPWA 495 Independent Study** (1-3)
- HPWA 496 Topics** (1-3)
- HPWA 497 Pre-Internship in Physical Education** (2)  
Provides an opportunity for K-12 physical education majors to research and study teaching and standard-based education in a physical education setting. Sixty laboratory hours required. Prerequisite: HPWA 320, 408. (Fall/Spring)
- HPWA 499 Internship** (3-12)  
Work experience obtained on a job where assignments are related to the student's specific concentration area within the Human Performance and Wellness degree. Prerequisites: Human Performance and Wellness major, senior standing. (Summer/Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.



**HPWA 500 Facility and Equipment Management in Sport and Fitness (3)**

Provides an in-depth study of the facilities and equipment used in a variety of sport and fitness settings, from public to private organizations, educational settings, athletics (inter-scholastic, intercollegiate, and professional sports) as well as commercial and corporate fitness centers. The focus is on designing, planning, funding, and maintaining a facility as well as the equipment necessary for its successful operation. (Summer on demand)

**HPWA 510 Event and Program Management in Sport and Fitness (3)**

Duties and responsibilities of sport and fitness managers in creating policies, conducting events, and developing programs for sport or fitness organizations. Includes extensive examination of the topics and issues involved in the planning, funding, promotion, implementation, and evaluation of events and programs. (Summer on demand)

**HPWA 520 Management Policies and Regulations in Sport and Fitness (3)**

Study of managerial policies and regulations to specific sport and fitness organizations to include educational, athletic, commercial, and corporate entities. Topics will include the following: human resource management; labor relations; policy issues; sponsorship; budgeting; federal, state, and local statutes; CHSAA and NCAA rules and guidelines; and professional organization policies. Specific attention will be given to compliance strategies. (Summer on demand)

**ACTIVITY**

The following courses meet the physical activity requirement for graduation. All students seeking a baccalaureate degree must take HPWA 100 along with two courses from the activity list. All students seeking an associate degree must take HPWA 100 plus one course from the activity list. Each activity course is scheduled for an eight-week module and includes lectures on the history, rules, and techniques of the activity and participation in the activity. Students are examined both on knowledge of the activity and proficiency in the activity. No HPWE courses may be used as electives toward any degree or certificate.

| <b>HPWE/DANC</b> | <b>Activity Courses</b> | <b>(1 each)</b> |
|------------------|-------------------------|-----------------|
| HPWE 101         | Beginning Swimming      |                 |
| HPWE 102         | Intermediate Swimming   |                 |
| HPWE 103         | Diving                  |                 |
| HPWE 104         | Water Polo              |                 |
| HPWE 105         | Water Aerobics          |                 |
| HPWE 106         | Scuba I                 |                 |
| HPWE 107         | Scuba II                |                 |
| HPWE 108         | Canoeing                |                 |
| HPWE 109         | Kayaking                |                 |
| HPWE 110         | River Rafting           |                 |
| HPWE 111         | Rock Climbing           |                 |
| HPWE 112         | Hiking                  |                 |

|          |                               |
|----------|-------------------------------|
| HPWE 113 | Beginning Bowling             |
| HPWE 114 | Intermediate Bowling          |
| HPWE 115 | Beginning Golf                |
| HPWE 116 | Intermediate Golf             |
| HPWE 117 | Badminton                     |
| HPWE 119 | Archery                       |
| HPWE 121 | Beginning Tennis              |
| HPWE 122 | Intermediate Tennis           |
| HPWE 123 | Racquetball                   |
| HPWE 124 | Intermediate Racquetball      |
| HPWE 125 | Handball                      |
| HPWE 126 | Fitness Walking               |
| HPWE 127 | Physical Conditioning         |
| HPWE 128 | Intermediate Weight Training  |
| HPWE 129 | Weight Training               |
| HPWE 130 | Fitness                       |
| HPWE 131 | Low-Impact Aerobics           |
| HPWE 132 | High-Impact Aerobics          |
| HPWE 133 | Downhill Skiing               |
| HPWE 134 | Snowboarding                  |
| HPWE 135 | Telemark Skiing               |
| HPWE 136 | Body Shaping                  |
| HPWE 137 | Horseback Riding              |
| HPWE 138 | Step Aerobics                 |
| HPWE 139 | In-Line Skating               |
| HPWE 140 | Snowshoeing                   |
| HPWE 141 | Mountain Biking               |
| HPWE 143 | Orienteering                  |
| HPWE 145 | Wrestling                     |
| HPWE 147 | Track and Field               |
| HPWE 149 | Gymnastics                    |
| HPWE 150 | Adaptive Aquatics             |
| HPWE 151 | Adaptive Physical Activity    |
| HPWE 152 | Softball                      |
| HPWE 153 | Adaptive Aquatics II          |
| HPWE 154 | Beginning Baseball            |
| HPWE 155 | Intermediate Baseball         |
| HPWE 156 | Soccer                        |
| HPWE 157 | Adaptive Physical Activity II |
| HPWE 158 | Speedball                     |
| HPWE 159 | Aikido                        |
| HPWE 160 | Field Hockey                  |
| HPWE 161 | Two-Person Outdoor Volleyball |
| HPWE 162 | Volleyball                    |
| HPWE 163 | Intermediate Volleyball       |
| HPWE 164 | Beginning Basketball          |
| HPWE 165 | Intermediate Basketball       |
| HPWE 166 | Flag Football                 |
| HPWE 167 | T'ai Chi                      |
| HPWE 168 | Hatha Yoga & Relaxation I     |
| HPWE 169 | Hatha Yoga & Relaxation II    |
| HPWE 179 | Dance Performance Group       |
| HPWE 180 | Varsity Football              |
| HPWE 181 | Varsity Basketball            |
| HPWE 182 | Varsity Baseball              |
| HPWE 184 | Varsity Tennis                |
| HPWE 185 | Varsity Volleyball            |

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

|          |                        |
|----------|------------------------|
| HPWE 186 | Varsity Softball       |
| HPWE 187 | Varsity Soccer         |
| HPWE 188 | Varsity Golf           |
| HPWE 189 | Varsity Cross Country  |
| HPWE 172 | Square Dance           |
| HPWE 173 | Folk Dance             |
| HPWE 174 | Social Dance           |
| DANC 160 | Beginning Ballet       |
| DANC 169 | Beginning Modern Dance |
| DANC 174 | Beginning Jazz Dance   |
| DANC 177 | Beginning Tap Dance    |

Prerequisites for all "Intermediate" or Part II classes: the corresponding beginning course or consent of instructor.

**HPWE Varsity Athletics (1 each)**

|                         |                       |
|-------------------------|-----------------------|
| HPWE 180, 280, 380, 480 | Varsity Football      |
| HPWE 181, 281, 381, 481 | Varsity Basketball    |
| HPWE 182, 282, 382, 482 | Varsity Baseball      |
| HPWE 184, 284, 384, 484 | Varsity Tennis        |
| HPWE 185, 285, 385, 485 | Varsity Volleyball    |
| HPWE 186, 286, 386, 486 | Varsity Softball      |
| HPWE 187, 287, 387, 487 | Varsity Soccer        |
| HPWE 188, 288, 388, 488 | Varsity Golf          |
| HPWE 189, 289, 389, 489 | Varsity Cross Country |

Physical activity courses numbered 180-189 designates the first year of varsity athletics; 280-289, the second; 380-389, the third; and 480-489, the fourth. These courses must be taken in sequence. In addition to the rules above for HPWE courses, the following apply:

Only one varsity sport activity course, numbered HPWE 180-189, may be used to meet the College physical activity requirement.

A student may elect to register for a particular varsity sports class for credit as many as four times (once at each level).

Varsity sports activity credit at the 300 and 400 level may not be counted towards the forty (40) credit hour upper division requirement for graduation unless they are a required part of a degree program.

## HUMANITIES (HUMA)

|   |              |
|---|--------------|
| <b>HUMA 196 Topics</b>  | <b>(1-3)</b> |
| <b>HUMA 201 Field Studies in Humanities</b>   | <b>(1)</b>   |
| Study/travel tours of varying lengths in the United States and foreign countries to acquaint students in some depth with particular aspects of world culture (language, the arts, literature, etc.) both contemporary and historical. (On demand) |              |
| <b>HUMA 296 Topics</b>  | <b>(1-3)</b> |

**HUMA 300 History and Development of Books (3)**  
History and development of the book from the development of the alphabet to the present in the context of changing technologies and various social, cultural, and economic influences. Prerequisites: Junior or senior status, or consent of instructor. (Spring)

**HUMA 301 Field Studies in Humanities (3)**  
Prerequisite: junior or above standing. (On demand)

**HUMA 395 Independent Study (1-3)**

**HUMA 396 Topics (1-3)**

**HUMA 495 Independent Study (1-3)**

**HUMA 496 Topics (1-3)**

**HUMA 499 Internship (8)**  
See faculty advisor for details. (On demand)

## INTERDISCIPLINARY STUDY (INTR)

**INTR 400 San Juan Symposium (6)**  
An interdisciplinary study of regional biology, geology, and history, combining classroom study on campus with field study in the San Juan Mountains of Colorado. Elective credit only; may not be used to meet requirements of a discipline in Mesa State College degree programs. Prerequisites: upper division standing and consent of instructors. Not open to freshmen and sophomores. (Summer/on demand)

## MACHINING AND MANUFACTURING TRADES (MAMT)

NOTE: Full-time student schedule is a minimum of five hours per day in MAMT courses. Enrollment, with instructor approval, may occur at any time in certain courses. Please check with the instructor.

**MAMT 100 Machine Shop Studies (3)**  
Concentrated and condensed overview in the areas of calculator math, blueprint reading, geometric tolerancing, inspection, gauging, safety, and employee group skills. (On demand)

**MAMT 101 Introduction to Manufacturing (2)**  
The course is designed to give the student a broad overview of the world of manufacturing. The course will include people, materials, machines, design, organization, waste, quality, and other subjects which effect society and production of a product. (Fall)

- MAMT 102 Machine Shop Theory** (3)  
Concentrated unit dealing with speeds and feeds of machines, materials, tooling, tapping, boring, and manufacturing processes. (On demand)
- MAMT 105 Print Reading/Sketching** (2)  
Reading of blueprints and process sheets as used in industry, application of that information to various manufacturing processes. (On demand)
- MAMT 106 Geometric Tolerancing** (1)  
Identification, interpretation, and application of the blueprint symbols (referred to as Geometric Tolerancing symbols) in machining and inspection operations. Corequisite: MAMT 105 or consent of instructor. (On demand)
- MAMT 110 Gauging and Measuring Tools** (1)  
Uses and techniques of inspection including micrometers, Vernier scales, instruments, hole gauges in surface plate work, finish of parts and overall inspection techniques. Prerequisite: MAMT 106 or consent of instructor. (On demand)
- MAMT 115 Introduction to Machine Shop** (1)  
**MAMT 115L Introduction to Machine Shop Laboratory** (2)  
Safety procedures: using bench tools, layout tools, power saws, and taps; sharpening general purpose drills, grinding lathe bits; and identifying and operating basic machines such as the bench grinder, drill press, band saw, and others. One hour lecture and three hours laboratory per week. (Fall/Spring)
- MAMT 120 Machine Technology I** (1)  
**MAMT 120L Machine Technology I Laboratory** (3)  
Operation of engine lathes, milling machines and surface grinders. One hour lecture and five hours laboratory per week. Prerequisite: consent of instructor. (On demand)
- MAMT 125 Machine Technology II** (1)  
**MAMT 125L Machine Technology II Laboratory** (3)  
Further development of skills acquired in MAMT 120. Emphasis will be placed on technical aspects of tooling and machining tolerances. One hour lecture and five hours laboratory per week. (On demand)
- MAMT 130 Machine Technology III** (1)  
**MAMT 130L Machine Technology III Laboratory** (3)  
Advanced machine operations including O.D. grinding, cutter tool grinding, gear cutting, indexing, and rotary table work with emphasis on accuracy, inspection, and workmanship. One hour lecture and five hours laboratory per week. (Spring, on demand)
- MAMT 135 Job Shop Machining I** (1)  
**MAMT 135L Job Shop Machining I Laboratory** (2)  
Production of machined parts from a shop blueprint, writing process sheets, and estimating machine time. Machining of parts may involve one or more machine operations. Machine time, paperwork, inspection, and accuracy will be emphasized. One hour lecture and three hours laboratory per week. Prerequisite: consent of instructor. (On demand)
- MAMT 140 Job Shop Machining II** (1)  
**MAMT 140L Job Shop Machining II Laboratory** (2)  
Further development of writing process sheets, estimating machine time, performing final inspection of finished parts and using all machines in the shop including the numerical control machines. One hour lecture, three hours laboratory per week. Prerequisite: MAMT 130 or consent. (Spring, on demand)
- MAMT 145 Machine Maintenance** (1)  
**MAMT 145L Machine Maintenance Laboratory** (1)  
Maintaining, lubricating, and repairing machinery including making gib adjustments, selecting and using proper lubricants and selecting or manufacturing parts of making repairs with emphasis on workmanship and inspection. One hour lecture, one and one-half hours laboratory per week. Prerequisite: consent of instructor. (On demand)
- MAMT 148 CNC Applications** (3)  
Introduction to Computer Numerical Control programming basics, CAM software and tooling used in today's manufacturing CNC Milling machines and CNC lathes. (Fall/Spring/Summer)
- MAMT 150 Introduction to Numerical Control** (1)  
Numerical control/computerized numerical control machining, its advantages and how it operates. The course is designed as an informational unit for customized pre-employment training. (On demand)
- MAMT 151 Numerical Control Machining I** (1)  
**MAMT 151L Numerical Control Machining I Laboratory** (2)  
Computerized and numerical control machining operations, including control of functions, programming format, machine setup, and operation. Two hours lecture and three hours laboratory per week. Prerequisite: consent of instructor. (On demand)
- MAMT 155 Numerical Control Machining II** (1)  
**MAMT 155L Numerical Control Machining II Laboratory** (2)  
Further development of concepts introduced in MAMT 151 with emphasis on setup and operation of N.C./C.N.C. machines. Two hours lecture and three hours laboratory per week. Prerequisite: consent of instructor. (Spring)
- MAMT 160 Properties of Materials** (1)  
**MAMT 160L Properties of Materials Laboratory** (1)  
Descriptions of smelting and refining various types of metals. Discussions and demonstrations on various methods of heat treating, hardness testing, and cutting chip theory. One one-hour lecture and one one and one-half hour laboratory per week. (Fall, on demand)

**MAMT 170 Practical Applications** (3)  
Students will gain a working knowledge in manufacturing through Coop, internship, work experience or required lab work in industrial study if outside work cannot be acquired. Prerequisite: Instructor permission. (On demand)

**MAMT 207 Introduction to Statistical Process Control** (2)  
Introduction to the philosophical and economic bases for statistical process control and its use; mathematical and non-mathematical SPC techniques with emphasis on application. (On demand)

**MAMT 295 Independent Study** (1-3)

**MAMT 296 Topics** (1-3)

## **MANAGEMENT (MANG)**

---

**MANG 121 Human Relations in Business** (3)  
Human side of organizations: morale, motivation, human needs, minorities as working partners, leadership styles, organizational environment, and other human forces having an impact on business structures. (Fall/Spring)

**MANG 201 Principles of Management** (3)  
Management as the process of achieving organizational goals or objectives by and through others. Emphasizes functions performed by managers and how they are influenced by forces both within and outside the organization. Managers' use of resources will be investigated. (Fall/Spring)

**MANG 221 Supervisory Concepts and Practices** (3)  
For practicing or potential supervisors and managers who hold or will hold first-line to middle-level management positions. Focuses on the management functions of planning, organizing, staffing, directing, and controlling and their relation to the daily job of the supervisor. (On demand)

**MANG 299 Internship** (3-6)  
Practical workplace experience under the joint supervision of the employer and the internship coordinator. Designed for business majors working in the business environment. Prerequisites: ACCT 201, BUGB 101, BUGB 211, and CISB 101. (Fall/Spring/Summer)

**MANG 300 Small Business Management** (3)  
Aspects of management uniquely important to small business firms; the economic and social environment in which they function. Prerequisite: MANG 201 or consent of instructor. (Fall)

**MANG 301 Organizational Behavior** (3)  
Human behavior, its causes and effects in organizational settings. Description of and development of an understanding of human behavior in such settings. Prerequisite: MANG 201 or consent of instructor. (Fall/Spring)

**MANG 302 Entrepreneurship** (3)  
Analysis of managerial problems of small business; preparing a business plan, case studies, outside speakers, and individual reports of local small business enterprises. Students must have an understanding of elementary accounting, finance, and business law. Prerequisites: MANG 201, 300, MARK 231, or consent of instructor, and three hours of ACCT courses beyond 202. (Spring)

**MANG 331 Quantitative Decision-Making** (3)  
Application of inferential statistics to realistic business situations; use of quantitative tools to enhance business decision-making ability. Descriptive statistics for data summarization, probability theory, distributions, estimation, and index numbers with emphasis on hypothesis testing, analysis of variance, regression/correlation, time series, and introduction to operations research and linear programming. Prerequisites: MATH 113 or higher, STAT 200 or STAT 214. (Fall/Spring)

**MANG 371 Human Resource Management** (3)  
Effective use and adaptation to the human resources of an organization through the management of people-related activities including interface activities forming the core of personnel management: work, staffing, compensation, appraisal, training, development, organizational maintenance, and unions. Prerequisites: MANG 201, junior or senior standing, or consent of instructor. (Fall/Spring)

**MANG 372 Employment Assessment** (3)  
Legal and ethical issues in the pre-employment assessment and screening process. Topics include developing the job profile, developing the application form, developing the structured interview, interviewing techniques, and questioning techniques. Prerequisite: MANG 371. (Fall)

**MANG 395 Independent Study** (1-3)

**MANG 396 Topics** (1-3)

**MANG 401 Advanced Problems in Small Business Operations I** (6)  
A Small Business Institute program sponsored by the School of Business and Small Business Administration enables students to furnish management assistance to members of the small business community. Practical training, supplementing academic theory by handling problems in a real business environment. Students must apply at least six weeks before the end of the semester preceding the semester in which they wish to participate. Credit not available through competency or challenge. Prerequisite: MANG 302 and/or consent of instructor. (On demand)

**MANG 402 Advanced Problems in Small Business Operations II** (6)  
Continuation of MANG 401. Prerequisites: MANG 302 and/or consent of instructor. (On demand) (Not necessary to complete MANG 401 before 402.)

**MANG 421 Credit and Collection Management (3)**  
Consumer and commercial credit in relationship to the management of credit by business firms, legal aspects of credit extension and current legislation. Information on credit operations of business for both students of business and practicing businessmen. Prerequisites: ACCT 202, MANG 201 or consent of instructor. (Spring)

**MANG 451 Career Research and Development (3)**  
Principles and techniques involved in a job search with emphasis on conducting career research, identification of goals, preparing a job campaign, and elements of a job interview. Preparation of a job kit including a prospect list, resume, cover letter, advertisements, prospect letters, and sales and follow-up letters which can be used in a job search. Prerequisite: senior standing or consent of instructor. (Fall/Spring)

**MANG 471 Production/Operations Management (3)**  
The use of resources in producing goods and services; concepts of planning, scheduling, and controlling productive activities and physical resources. Prerequisites: FINA 301, Senior standing. (Fall/Spring)

**MANG 491 Business Policies and Management (3)**  
Duties and responsibilities of top management in establishing policies, objectives, and future plans for business organizations. Includes complex cases taken from actual experiences in situations involving policy decisions. Required of all BBA and BS accounting students. Prerequisites: all required core and emphasis concentration courses must be completed or concurrently enrolled and senior standing. (Fall/Spring)

**MANG 495 Independent Study (1-3)**

**MANG 496 Topics (1-3)**

**MANG 499 Internship (3.9)**  
Provides BBA students with an opportunity to learn more about management functions and activities through exposure to an actual business or agency environment. Observation and participation in management activities enable students to relate classroom theory to on-the-job experiences. Prerequisites: BBA major, second semester junior or senior, written consent of instructor prior to registration. (Fall/Spring/Summer)

**MANG 500 Advanced Management Theory (3)**  
Designed to advance the student's understanding of management theories and the application of these theories to the business world. Contemporary issues will be discussed. (Fall)

**MANG 501 Production and Operations Management (3)**  
Competitive strategies and strategic impact of the transformation process in a global economy. Operations management issues including quality, inventory management, management of technology, manufacturing planning and control, just-in-time manufacturing and optimized production technology. Impact of business system on productivity and profits. (Spring)

**MANG 510 Organizational Theory and Behavior (3)**  
Designed to encourage the application of diverse conceptual and theoretical perspectives to the analysis and control of behavior in organizations. Practice in diagnosing organizational problems is gained by combining the use of theories, texts, readings, cases and exercise. The course focuses on problems related to perception, motivation, leadership, cultural diversity, interpersonal and group conflict, stress, work-family conflict, influence, decision-making, ethics, international management issues and change. (Spring)

**MANG 520 Human Resource Management (3)**  
Provides an in-depth study of the effective use and adaptation to the human resources of an organization through the management of people-related activities. The focus is on the core responsibilities and activities of the HR manager. Also included is a detailed review of current statutes and regulations affecting the HR field. (On Demand)

**MANG 540 Advanced Quantitative Methods (3)**  
Analytical models to support decision making. Topics include linear optimization, sensitivity analysis, linear regression, decision making under uncertainty, decision making under risk, project management, transportation and assignment methods, and forecasting. (On Demand)

**MANG 550 Entrepreneurship (3)**  
Takes the student through activities that an entrepreneur would encounter in the small business start-up process. Topics will center around marketing, managerial, legal, financial and informational needs of the new venture. The use of cases, real life projects and Internet resources will be used extensively during the course. (On Demand)

**MANG 590 Strategy and Policy (3)**  
The capstone course in the MBA program. The purpose of this course is to develop an understanding of strategic management and the "how" and "why" of strategic decisions. Emphasis is also placed on how the manager goes about translating strategy into action and achieves integration in the organization. Integration involves the functional areas of management and how to balance the trade-offs from the perspective of strategic decision making at the top management level. (Spring)

## **MARKETING (MARK)**

---

**MARK 231 Principles of Marketing (3)**  
Use and development of marketing strategy and the effects of buyer motivation. Major functions of marketing, buying, selling, distribution, pricing, advertising, and storage are studied. A contrast is made between the two marketing institutions: wholesaling and retailing. (Fall)

**MARK 325 Consumer Behavior (3)**  
Overview of the processes involved when individuals or groups select, purchase, use or dispose of products and serv-

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

## COURSE DESCRIPTIONS

133

ices to satisfy needs and desires. Prerequisite: MARK 231. (Fall)

**MARK 332 Promotion (3)**  
Overview of the many ways in which goods, services, and ideas can be promoted to consumers and businesses through advertising, public relations, and publicity. Prerequisite: MARK 231. (Spring)

**MARK 335 Sales and Sales Management (3)**  
The salesperson as a counselor whose role is to help buyers make better decisions. Professional salesmanship is recognized as an integral function in modern society, with basic sales techniques studied and practiced in sales presentations. The course is taught from a management perspective. Prerequisite: MARK 231. (Fall)

**MARK 350 Marketing Research (3)**  
Marketing research theory and techniques designed to educate the student in the use of the scientific method, develop analytical ability, present basic marketing research tools, and develop proficiency in the art of writing research reports. Cases and actual research projects will be utilized. Prerequisites: STAT 214, MARK 231, MARK 325. (Fall)

**MARK 395 Independent Study (1-3)**

**MARK 396 Topics (1-3)**

**MARK 402 Sport Marketing (3)**  
The application of the principles of promotion and marketing to the sport and fitness industry including the areas of professional sports, corporate fitness, college/high school athletics, clubs and resorts, and others. Prerequisite: MARK 231. (Alternate Spring)

**MARK 432 Advanced Marketing (3)**  
In-depth complex marketing problems confronting modern business. Development of marketing strategy to allow the firm to progress toward its corporate objectives. Prerequisites: MARK 231, 350. (Spring)

**MARK 495 Independent Study (1-3)**

**MARK 496 Topics (1-3)**

**MARK 500 Marketing Strategy (3)**  
Examines the state-of-the-art in marketing strategy from both a practical and theoretical perspective. Focusing on integrating a broad range of marketing concepts, the emphasis is on setting realistic marketing objectives, understanding marketing research concepts, demographic market segmentation, and current marketing topics. (Fall)

## MASS COMMUNICATIONS (MASS)

**MASS 110 Mass Media: Impact & History (3)**  
The role played by media in the everyday lives of citizens and media's social and economic impact on society. (Fall/Spring)

**MASS 196 Topics (1-3)**

**MASS 201 Writing and Reporting for the Media (3)**  
Fundamentals of news gathering and writing, interviewing, reporting and writing of newsworthy events and personalities, using computers and the internet. Stories are submitted for publication and broadcast. Prerequisite: MASS 110 or consent of instructor. (Fall/Spring)

**MASS 250 Radio/TV Announcing (3)**  
Exploration of the art and science of announcing for the media. The importance of and use of spoken language in persuasive messages. Prerequisite: MASS 110. (Fall)

**MASS 260 Audio Production (3)**  
Approaches to digital audio production. Students will create original programs and formats for radio distribution. (Spring)

**MASS 296 Topics (1-3)**

**MASS 301 Broadcast Journalism Writing (3)**  
Techniques and practice in writing broadcast scripts, including news and documentary. Prerequisite: MASS 201 or consent of instructor. (Fall)

**MASS 303 Public Affairs (3)**  
Practice in advanced reporting techniques, with students alternating from broadcasting style to print style on a variety of exercises. Examination of gathering and presenting information involving public information officers, public relations officials, and government agencies. Prerequisite: MASS 201 and MASS 301 or consent of instructor. (On demand)

**MASS 304 Editorials and Commentaries (3)**  
Practice in researching, interviewing, and writing editorials and commentaries for the media. Techniques will include writing persuasive articles on a variety of subjects by supporting beliefs with analysis and documentation, and then presenting them in both broadcast and print style. (Alternate years on demand)

**MASS 305 Magazine/Feature Writing (3)**  
Practice in researching, interviewing, and writing feature articles for magazines and newspapers. Techniques will include freelancing and submitting non-fiction articles to publications, and using on-line computer services. Prerequisite: MASS 201 and MASS 301 or consent of instructor. (Alternate Spring)

**MASS 306 Sports Reporting and Casting (3)**  
Practice in researching, interviewing, writing and reporting on sports. Techniques will include both print and broadcast sports reporting, as well as examining sports information directors' responsibilities. Prerequisite: MASS 201 or permission of instructor. (Alternate Fall)

**MASS 320 Fundamentals of Photojournalism (3)**  
Exploration of photojournalism techniques. Students create portfolios demonstrating a variety of photography skills. Students provide their own supplies and an adjustable camera (35mm or digital) with manual controls for shutter speeds and

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

f/stops. Prerequisite: MASS 110 or permission of instructor. (Fall)

**MASS 330 Editing and Publication Design (3)**  
Editing articles and photos, and designing publications. Students create designs for magazines, newspapers, brochures and newsletters by using computers, scanners, and modern software. Prerequisite: MASS 201 or consent of instructor. (Fall)

**MASS 340 Mass Media Advertising (3)**  
Designed to acquaint students with principles of mass media advertising. Study of advertising in perspective, advertising barriers, propaganda techniques, layout and design, and actual production for major media: newspapers, radio, and television. Includes work on computers. Prerequisite: MASS 110 or consent of instructor. (Spring, on demand)

**MASS 350 Public Relations Concepts (3)**  
Historical and theoretical approach to contemporary public relations with emphasis on the persuasion process and ethics, propaganda, and advertising techniques in the mass media. Prerequisite: MASS 201 or consent of instructor. (Fall, on demand)

**MASS 360 Television Production (3)**  
Studio and control room operation as well as out-of-studio production, emphasizing video console equipment, cameras, microphones, and video editing. Prerequisite: MASS 201 and MASS 260. (Fall/Spring)

**MASS 395 Independent Study (1-3)**

**MASS 396 Topics (1-3)**

**MASS 397 Practicum (1)**  
Experience with campus media including publications and/or radio station under faculty supervision. Prerequisite: MASS 110, or consent of instructor. (Fall/Spring)

**MASS 401 Commercial Copy Writing (3)**  
Exploration of the art of script writing for radio and television commercials. A variety of time formats is considered. Prerequisites: MASS 110 and 301. (Alternate Spring)

**MASS 402 Writing for PR and Advertising (3)**  
Emphasizes the copywriting function in public relations and advertising for organizations and agencies. Prerequisites: MASS 340 and 350. (Spring)

**MASS 410 Content Development for Web Pages (3)**  
Developing content for the World Wide Web for small businesses, non-profit organizations and media from a public relations perspective. Development of content for public relations, advertising, marketing and sales, academic and news web sites. Electronic publications and on-line publishing policies and procedures. Methods of electronic journalism. Prerequisite: MASS 201. (Alternate Fall)

**MASS 420 Digital Photography (3)**  
Experience with photojournalism by using digital still images through the use of cameras and computer hardware and software. Students will shoot their own photojournalism pictures to build a portfolio demonstrating a variety of skills, especially in the areas of digital darkroom techniques necessary for modern publications. Student will provide his/her own supplies, such as a 35mm SLR camera, color film, processing, disks, etc. Prerequisite: MASS 320, or consent of instructor. (Alternate Spring)

**MASS 430 Desktop Publishing (3)**  
Experience with advanced layout and design techniques on computers, including producing brochures, organization newsletters, magazines, and newspapers. Techniques will include using a variety of hardware and software, digital photography, graphics, and producing a web page as a public relations tool. Prerequisite: MASS 201 and MASS 330 or consent of instructor. (Alternate Spring)

**MASS 440 Media Management and Promotions (3)**  
Study of techniques for managing today's electronic and print media. Theory and practical application in advertising and sales, laws, rules and regulations, audience research, programming, and making a profit. Prerequisites: MASS 110, MASS 201 (Alternate Spring)

**MASS 450 Public Relations Campaigns (3)**  
Campaigns and case histories presenting the scope of PR, research methodology, and audience targeting. Practical application of PR theory. Prerequisite: MASS 350 or consent of instructor. (Spring on demand)

**MASS 460 Advanced Television Production (3)**  
Advanced techniques in television production with an emphasis on using ENG/EFP cameras in out-of-studio situations and in video editing. Production of short videos as well as studio productions required. Prerequisites: MASS 201 and MASS 360. (Fall/Spring)

**MASS 470 Advanced Producing Techniques (3)**  
Study of the techniques of the video and television producer with "hands-on" experience in producing industry videos as well as programs for public and commercial television. Prerequisite: MASS 460 or consent of instructor. (Spring, on demand)

**MASS 480 Journalism Law and Ethics (3)**  
Ethical principles and state and federal laws affecting the reporting of news, expression of opinion, news photos, advertising, and publication of newspapers. Prerequisite: upper class standing or consent of instructor. (Fall, on demand)

**MASS 490 Theory and Research (3)**  
Exploration of mass communication theories and constructs. Considerations and executions of research via qualitative and quantitative methodologies. Prerequisite: MASS 380. (Fall)

**MASS 494 Seminar** (3)  
Major issues of the media in modern culture and media criticism. Prerequisite: Upper division standing. (Spring)

**MASS 495 Independent Study** (1-3)

**MASS 496 Topics** (1-3)

**MASS 497 Practicum** (1)

See MASS 397 course description.

**MASS 499 Internship** (5-12)

Work in newspapers, radio, television, advertising or public relations positions, or other situations that meet instructor's approval. Prerequisite: At least junior standing with at least half of major requirements completed; MASS 201, MASS 480. (Fall/Spring/Summer)

## MATHEMATICS (MATH)

Graphing calculator is recommended or required for several mathematics classes. See department for recommended models.

In order to take any of the following mathematics courses, each listed prerequisite (or an equivalent course) must be completed with a grade of "C" or better. The instructor may waive the prerequisite.

**MATH 090 Introductory Algebra** (4)  
Introduction to algebra with a review of basic arithmetic. Includes decimals, fraction, percentage, ratio, proportion, signed numbers, algebraic expressions, factoring, exponents and radicals, linear equations, functions and graphs. (Fall/Spring)

**MATH 091 Intermediate Algebra** (3)  
Further study in topics of algebra. Includes properties of real and complex numbers; laws of exponents and radicals; factoring polynomials; solving linear and quadratic equations and inequalities; rational expressions and complex fractions; introduction to functions and relations; applications. Prerequisites: MATH 090 or equivalent, or appropriate mathematics placement test score. (Fall/Spring)

**MATH 105 Elements of Mathematics I** (3)  
Mathematics for the prospective elementary teacher with an emphasis on understanding mathematical reasoning and processes. Topics include problem solving, set theory, number theory, numeration systems, the integers and rational numbers. Prerequisites: Appropriate mathematics placement test score and interview, and consent of instructor. (Fall/Spring)

✓ **MATH 110 College Mathematics** (3)  
Essential mathematical concepts for B.A. students. Topics include logic, set theory, solving equations, basic inequalities, combinatorics, probability, descriptive statistics, geometry, consumer mathematics and the appropriate use of calculators.

Prerequisites: two years of high school math at the algebra level or higher, or MATH 091 or equivalent or appropriate mathematics placement test score. (Fall/Spring)

✓ **MATH 113 College Algebra** (4)

A college-level treatment of algebra. Topics include algebraic properties of the integers, rationals, real and complex numbers; techniques for manipulation of expressions; techniques for solving linear, non-linear, absolute value equations, and inequalities; techniques for solving systems of equations; the Cartesian plane, relations and functions; properties and graphs of polynomial, rational, exponential, logarithmic and inverse functions; conic sections. Prerequisite: MATH 091 or equivalent, or appropriate mathematics placement test score. (Fall/Spring)

✓ **MATH 119 Precalculus Mathematics** (5)

An in-depth treatment of the mathematics essential to Calculus. Topics include the Cartesian plane, functions; polynomial, rational, exponential, logarithmic, inverse, circular and trigonometric functions; solving inequalities and systems of equations. Additional topics may include matrices, determinants and vectors. Prerequisite: MATH 113 or equivalent, or appropriate mathematics placement test score. (Fall/Spring)

**MATH 121 Calculus for Business** (3)

An introduction to calculus with an emphasis on applications to business and economics. Topics include linear and quadratic functions, limits, continuity, differentiation, integration, the logarithmic and exponential functions, and applications. Computer algebra systems will be used where applicable. Current college algebra skills and graphic calculator are required. Prerequisite: MATH 113 or equivalent, or appropriate mathematics placement test score. (Fall/Spring)

**MATH 127 Mathematics of Finance** (3)

Simple interest, simple discount, compound interest, continuously compounded interest, annuities, perpetuities, capitalization, determining payment size, determining outstanding principal, and constructing amortization schedules, including the derivation of mathematical formulae and the methods for solving many financial problems. Prerequisites: MATH 113 or consent of instructor. (On Demand)

**MATH 130 Trigonometry** (3)

A college-level treatment of trigonometry. Topics include the Cartesian plane, functions, inverse functions, the circular function, trigonometric functions, graphs of trigonometric functions, trigonometric identities, solving trigonometric equations, inverse trigonometric functions, triangle solution techniques and vectors. Prerequisite: MATH 113 or equivalent, or appropriate mathematics placement test score. (Fall/Spring)

**MATH 141 Analytical Geometry** (3)

A college-level treatment of analytic geometry. Topics include Cartesian coordinate systems, distance, parallel and perpendicular lines and planes, the locus of a condition, gen-

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.



eralizations of lines, planes and parabolas, polar coordinates and vectors in two and three dimensions. Prerequisites: MATH 130 or consent of instructor. (Spring)

**MATH 146 Calculus for Biological Sciences (5)**

An introduction to calculus with an emphasis on applications to biology. Topics include functions, properties and graphs of polynomials, rational functions, the trigonometric, inverse, exponential and logarithmic functions, limits, continuity, differentiation, related rates, min-max problems, integration and applications of biology. Prerequisite: MATH 113 or consent of instructor. (Spring)

**MATH 147 Introduction to Computer Algebra Systems (1)**

Introduction to computer algebra using an appropriate computer algebra system (CAS) such as Maple, Mathematica, Derive, etc. Topics will include the syntax and simple programming of the CAS used. Assignments and projects will emphasize applications in Calculus. Prerequisite: MATH 119. Corequisite: MATH 151. (Fall on demand)

✓ **MATH 149 Honors Mathematics (3)**

An in-depth exploration of mathematical concepts, with an emphasis on the process of mathematical discovery. Topics are left to the discretion of the instructor, and typically include an introduction to more advanced topics such as group theory or graph theory. This course fulfills the general education requirement for students in the Honors Program. Prerequisite: Permission to enroll is required. (Fall)

**MATH 151 Calculus I (5)**

An introduction to differentiation and integration of functions of a single variable. Topics include functions, limits, continuity, differentiation, related rates, min-max problems, graphing, integration and applications. Prerequisite: MATH 119 or MATH 130, or appropriate mathematics placement test score. (Fall/Spring)

**MATH 152 Calculus II (5)**

A continuation of MATH 151 Calculus I. Topics include techniques of integration, trigonometric and hyperbolic functions, inverse, logarithmic and exponential functions, sequences, series, conic sections, polar coordinates and parametric equations. Prerequisite: MATH 151. (Fall/Spring)

**MATH 196 Topics (1-3)**

**MATH 205 Elements of Mathematics II (3)**

Decimal numbers, probability, statistics, geometry, and the metric system. A continuation of MATH 105 designed for the prospective elementary teacher. Prerequisite: MATH 105 or consent of instructor. (Fall/Spring)

**MATH 225 Computational Linear Algebra (3)**

A computational approach to matrices, determinates, systems of equations, vector spaces, linear transformations, eigenvectors and eigenvalues, as well as their applications. Computational methods will be used to explore and investi-

gate the traditional subjects of linear algebra. Prerequisite: MATH 253. (On demand)

**MATH 240 Introduction to Advanced Mathematics (3)**

An introduction to writing mathematical proofs. This course is designed to provide students with a transition from computationally-based lower level classes to proof-based upper level classes. The primary goal of the course is to train students to construct and analyze rigorous mathematical proofs. Topics include introductory logic, set theory, relations, functions, induction, equivalence relations, partitions and combinatorics. Prerequisites: MATH 152. (Fall/Spring)

**MATH 253 Calculus III (4)**

Vectors in three-dimensional space, vector functions, partial derivatives, directional derivative and multiple integrals. Prerequisite: MATH 152. (Fall/Spring)

**MATH 260 Differential Equations (3)**

Techniques of solving differential equations of order one, linear differential equations, linear equations with constant coefficients, non-homogeneous equations, variation of parameter techniques, and Laplace transform methods. Prerequisite: MATH 152. (Spring)

**MATH 296 Topics (1-3)**

**MATH 301 Mathematics for Elementary Teachers (3)**

A selection of mathematics topics addressing content and standards for elementary education. Strong emphasis on written and oral communication. Prerequisite: MATH 205 and formal acceptance into the Teacher Education Program, or consent of instructor. (Fall/Spring)

**MATH 305 Euclidean Geometry (3)**

Development of Euclidean Geometry. Topics include basic concepts of logic, axiomatic proofs, inductive reasoning, analytic geometry, applications of technology, and van Hiele levels of learning. Intended for students seeking elementary teacher licensure. Prerequisites: MATH 151 or 146. (Fall/Spring On Demand)

**MATH 310 Number Theory (3)**

Classical number theory including the fundamental theorem of arithmetic, congruences, and linear diophantine equations. Prerequisite: MATH 240. (On demand)

**MATH 325 Linear Algebra I (3)**

Matrices, solving systems of equations, determinants, vectors, vector spaces, linear transformations and eigenvalues. Prerequisite: MATH 240 or MATH 369 or consent of instructor. (Fall/ Spring)

**MATH 340 Ethnomathematics (3)**

Study of mathematics within cultures, especially small-scale indigenous cultures. Through the lens of culture, students can compare/contrast mathematics systems, their logical structures, and their modes of expression. Prerequisite: MATH 240 or MATH 301 or permission of instructor. (Alternate Fall)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

- MATH 360 Methods of Applied Mathematics** (3)  
Selection of techniques in applied mathematics of particular use to scientists and engineers. Topics include vector analysis, partial differential equations and transform techniques. Applications are stressed. Prerequisite: MATH 253 and 260. (Fall)
- MATH 361 Numerical Analysis** (4)  
Elementary numerical analysis using the hand-held programmable calculator including Taylor's theorem, truncating errors, iteration processes, least squares methods, numerical solution of algebraic and transcendental equations, systems of equations, ordinary and partial differential equations, integral equations, interpolation, finite differences, eigenvalue problems, relaxation techniques, approximations, and error analysis. Prerequisites: MATH 152. (Fall)
- MATH 365 Mathematical Modeling** (3)  
A bridge between calculus and the application of mathematics. Investigation of meaningful and practical problems chosen from experiences, encompassing the disciplines of mathematical sciences, operations research, engineering, management sciences and life sciences. Prerequisites: STAT 200, MATH 152, and one of the following: MATH 240, 253, 260, 325, or consent of instructor. (Spring)
- MATH 369 Discrete Structures I** (3)  
Elementary logic, induction, recursion, recurrence relations, sets, combinatorics, relations, functions, graphs, trees, and elementary abstract structures. Prerequisites: MATH 152, CSCI 111. (Fall)
- MATH 370 Discrete Structures II** (3)  
Applications of logic, Boolean algebra and computer logic, abstract structures, coding theory, finite-state machines, and computability. Prerequisites: MATH 369 or both MATH 240 and CSCI 111. (Spring)
- MATH 380 History of Mathematics** (3)  
History of mathematics from antiquity to the present with emphasis upon the development of mathematics concepts and the people involved. Prerequisite: MATH 152. (Spring)
- MATH 386 Geometries** (4)  
A study of Euclidean and non-Euclidean geometries. This course examines the differences in their axiom systems and their models, and how notions in Euclidean geometry are interpreted in non-Euclidean systems. Prerequisite: MATH 240. (Spring)
- MATH 394 Mathematics Colloquium** (1)  
A weekly series of talks on a wide range of contemporary mathematics will be given by local faculty and others. Students must provide written commentary on these talks. Prerequisite: Permission to enroll is required. (Fall/Spring)
- MATH 395 Independent Study** (1-3)
- MATH 396 Topics** (1-3)
- MATH 397 Structured Research** (1-4)  
Mathematical research under the direct guidance of a faculty member. Designed for junior and senior level students. May be repeated for up to 12 credit hours. Prerequisite: Permission of instructor. (Fall/Spring/Summer)
- MATH 420 Introduction to Topology** (3)  
Important as preparation for graduate work in many areas of mathematics and theoretical physics. Introduction to general topology, topics normally covered include: metric spaces, connectedness, compactness, the separation axioms and the Tychonoff theorem. Intended for mathematically mature students. Prerequisite: MATH 325 or consent of instructor. (On demand)
- MATH 425 Computational Abstract Algebra** (3)  
Introduction to abstract algebra, typically groups and rings, from a computational perspective. Computation will be used to help explore and verify the properties of some algebraic structures. Prerequisites: MATH 253, MATH 225 or 325. (Alternate Fall)
- MATH 430 Mathematical Logic** (3)  
Introduction to the classical areas of mathematical logic (model theory, proof theory, the theory of computation, complexity theory and set theory), the relationships these sub-disciplines have with each other and their relationships to the foundations of mathematics, computational science, computer science and the philosophy of mathematics. Prerequisite: MATH 240 or 369. (On demand)
- MATH 450 Complex Variables** (3)  
Algebra of complex numbers, analyticity, differentiation and integration of complex functions, Cauchy's integral formulae, and series. Prerequisite: MATH 240. (Fall)
- MATH 452 Advanced Calculus I** (3)  
An in-depth and rigorous treatment of the theory of calculus, with an introduction to real analysis. Topics for MATH 452 and MATH 453 include number systems, cardinality, point set topology; open and closed sets, metric spaces, completeness, compactness and connected sets; sequences, series, limits, continuity, differentiation, integration, sequences and series of functions, and Euclidean spaces. Prerequisite: MATH 240, 253. (Alternate Fall)
- MATH 453 Advanced Calculus II** (3)  
A continuation of MATH 452. Topics include number systems, cardinality, point set topology; open and closed sets, metric spaces, completeness, compactness and connected sets; sequences, series, limits, continuity, differentiation, integration; sequences and series of functions, and Euclidean spaces. Prerequisite: MATH 452. (Alternate Spring)
- MATH 460 Linear Algebra II** (3)  
Characteristics and minimal polynomial, Cayley-Hamilton Theorem, invariant subspaces, bilinear forms, primary decomposition theorem, dual vector spaces. Prerequisite: MATH 325. (On demand)

**MATH 484 Senior Seminar I** (2)  
An introduction to conducting mathematical research with discussion of various research topics, including how to read and analyze articles in mathematics. Presentations and papers will be required. Prerequisite: consent of instructor. (Fall)

**MATH 490 Abstract Algebra I** (3)  
An introduction to the theory of algebraic structures. Topics include groups, subgroups, cyclic groups, groups of permutations, homomorphisms, isomorphisms, the order of group elements, cosets, quotient structures, isomorphism theorems and an introduction to rings and fields. Prerequisite: MATH 240. (Alternate Fall)

**MATH 491 Abstract Algebra II** (3)  
A continuation of MATH 490 Abstract Algebra I. Topics include properties of rings, subrings, ideals, quotient structures; ring homomorphisms and isomorphisms, integral domains, polynomial rings, properties of fields, subfields, field extensions, finite fields and Galois Theory. Prerequisites: MATH 490. (Alternate Spring)

**MATH 494 Senior Seminar II** (2)  
Capstone course, with discussion of specialized topics and analysis of mathematical results, requiring students to interpret and present research. Subject matter will vary. Presentations and/or written research papers will be required. Prerequisite: Consent of instructor. (Fall/Spring)

**MATH 495 Independent Study** (1-3)

**MATH 496 Topics** (1-3)

## MUSIC (MUSA, MUSL, and MUSP)

### ACADEMIC

**MUSA 110 Standard Notation** (2)  
Basic components of written music: note reading, scales, key signatures, intervals, and fundamental rhythm and chord structures. Open to all students. May be required of music majors as prerequisite to MUSA 114. (Fall/Spring)

**MUSA 111 Music Technology I** (1)  
Introduction to computer applications in music. The course begins with a focus on basic computer operation and the installation of the various software programs that will be used in the course. The course will include an overview of the three basic music applications for computers: notation software, Computer Assisted Instruction (CAI) software, and sequencing software (including digital audio). Corequisite: MUSA 114. (Fall)

**MUSA 112 Music Technology II** (1)  
Continuation of the three basic tracks of study introduced in Music Technology I: notation, sequencing and CAI software. Emphasis will be placed on the more advanced applications

in these three areas. Other areas addressed include recording technology, digital sampling techniques, and transcription software. Prerequisite: MUSA 111. Corequisite: MUSA 115. (Spring)

**MUSA 113 Fundamentals of Theory** (3)  
Required theory course for music minor and music theatre students. Harmonic principles of music, including scales, intervals, triads, and chords. Concurrent enrollment in MUSA 130 or prior knowledge of the keyboard required. (Fall)

**MUSA 114 Theory I – Introduction** (3)  
Harmonic principles of the “common-practice” period including scales, intervals, triads and 7th chords. Introduction to part writing and voice leading. Prerequisite: satisfactory score on theory placement examination; concurrent enrollment in MUSA 116; concurrent enrollment in MUSA 130 or prior knowledge of the keyboard. (Fall)

**MUSA 115 Theory II – Diatonic Concepts** (3)  
Continuation of MUSA 114, extending to all types of diatonic 7th chords, and their usages. Includes advanced rules of tonal harmonization. Prerequisite: MUSA 114 or consent of instructor; concurrent enrollment in MUSA 117. Concurrent enrollment in MUSA 131 or prior knowledge of the keyboard is required. (Spring)

**MUSA 116 Ear Training and Sightsinging I** (2)  
Skills developed in reading rhythms, sightsinging, and listening. Emphasis on beginning melodic, harmonic, and rhythmic dictation. To be taken concurrently with MUSA 114. (Fall)

**MUSA 117 Ear Training and Sightsinging II** (2)  
Further development of skills in sightsinging, rhythmic recognition, advanced listening abilities, including dictation of melodic and harmonic intervals, chord progressions, and two, three, and four-part chorales. To be taken concurrently with MUSA 115. Prerequisite: MUSA 116. (Spring)

**MUSA 128 Workshop in Music** (1-3)  
Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers. (Fall/Spring, on demand)

**MUSA 130 Class Piano I** (2)  
For major and non-major students. Application of scales, chords and elements of music at the keyboard and development of repertoire. Recommended for all elementary, early childhood majors and music theatre majors. Prerequisite: MUSA 110 (music majors only). (Fall/Spring)

**MUSA 131 Class Piano II** (2)  
The student gains further expertise at the keyboard. Prerequisite: MUSA 130 or consent of instructor. (Spring)

**MUSA 137 Class Voice** (2)  
Fundamentals of singing, interpretation, phonetics, language (diction for singers), and solo repertoire for beginning voice students. (Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**MUSA 214 Theory III – Chromatic Concepts (3)**

The full use of chromaticism through secondary dominants, altered chords, Neapolitan and augmented sixth chords, and modulation techniques. Continues into 20th Century including the use of advanced chromaticism, serialism, and atonality. Includes advanced development of ear training and sight-singing. Emphasis on harmonic and rhythmic dictation. Continuation of MUSA 115 and 117. Prerequisites: MUSA 115 and 117. (Fall)

**MUSA 215 Theory IV - Twentieth Century Form and Analysis (3)**

Study of various compositional approaches and techniques of the 20th Century, correlated with the study of musical form. Includes advanced development of ear training and sight-singing. Emphasis on harmonic and rhythmic dictation. Continuation of MUSA 214. Prerequisite: MUSA 214. (Spring)

**MUSA 216 Keyboard Harmony (2)**

Keyboard and theory skills applied to perform harmonization of a given line, transposition at sight, and open score realization and sight-reading at the keyboard. Prerequisite: MUSA 214 and 230. (Spring)

**✓ MUSA 220 Music Appreciation (3)**

Masterpieces of music, composers, and performers useful for the music student who has a weak background in the Masters. (Fall/Spring)

**MUSA 228 Workshop in Music (1-3)**

Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers. (Fall/Spring, on demand)

**MUSA 230 Class Piano III (2)**

A concentrated study of repertoire in preparation for the piano proficiency exam. Maximum keyboard time will develop coordination and flexibility. Prerequisites: MUSA 130, 131, or consent of instructor. (Fall)

**MUSA 231 Class Piano IV (2)**

A continuation of the concepts introduced in MUSA 230. Reinforcement and new concepts of keyboard skills including minor scales and arpeggios, triad inversions, cadence progressions, harmonization, transposition, repertoire pieces to develop technical facility and knowledge of musical style. Prerequisites: MUSA 230 or consent of the instructor. (Spring)

**MUSA 232 String Instrument Techniques and Materials (2)**

Study of violin, viola, cello, and string bass in a class situation. Emphasis is on fundamentals of playing techniques at an elementary level. (Alternate Fall)

**MUSA 233 Woodwind Instrument Techniques and Materials (2)**

Study of flute, oboe, clarinet, bassoon, and saxophone in a class situation. Emphasis is on fundamentals of playing techniques at an elementary level. (Alternate Fall)

**MUSA 234 Brass Instrument Techniques and Materials (2)**

A concentrated course to develop a knowledge of the brass instruments and to acquire sufficient skill to demonstrate good tone, technique, and breath control. (Alternate Spring)

**MUSA 235 Percussion Instrument Techniques and Materials (2)**

The study of methods and materials for teaching beginning percussion in the public school. Includes practical instruction on the instruments utilized in the marching band, orchestra, and stage band. (Alternate Spring)

**MUSA 236 Electronic Instrument Techniques and Materials (2)**

The study of methods and materials for the introduction to the use of electronic instruments, including the areas of sound reinforcement (microphones and amplification) and sound generation (synthesis) by electronic means. (Alternate Spring)

**MUSA 240 History and Philosophy of Music Education (2)**

Examination of the history and philosophies of music education in the United States. Investigates music education practices in the schools and helps students discover and define their own personal philosophy which can serve as a foundation for their career in music education. Includes 15 hours of field experience. Prerequisites: MUSA 115, 117. (Fall)

**MUSA 241 Music and Methods in Early Childhood Education (2)**

For students who will be working with preschoolers and kindergarten-age students. Through the creative process students develop simple tunes and gain knowledge and appreciation of music. (Fall/Spring)

**MUSA 250 Beginning Conducting (2)**

Basic concepts and techniques necessary to conduct music. Students will be expected to master patterns, fermatas, dynamics, etc. Observation of other conductors and score study is included. Required of all music majors. Prerequisites: MUSA 214, 217. Corequisites: MUSA 215, 218. (Spring)

**MUSA 266 History of Popular Music (3)**

Differences in style, musical elements, lyrical content, and outstanding artists/writers in the areas of popular, rock, Country Western, and jazz idioms. Evolutionary aspects and social significance are introduced as background references. Guest lectures, class listening sessions, film strips, and music video augment the lecture sessions. Open to all students. (Fall/Spring)

**MUSA 268 Beginning Jazz Improvisation (2)**

Materials and techniques for improvisation, including chord and scale construction, modality, harmonic patterns, linear concepts, with emphasis on technique, style and idiomatic

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

usage. Prerequisites: MUSA 115 or consent of instructor. Corequisites: MUSA 214 or consent of instructor. (Fall)

**MUSA 296 Topics (1-3)**

**MUSA 302 Keyboard Literature I (3)**

Survey of keyboard literature from Elizabethan music through Mendelssohn. Prerequisites: MUSA 230 or consent of instructor, MUSL 230. (Alternate Fall)

**MUSA 303 Symphonic Literature (3)**

Survey of music from early instrumental to present-day compositions. Emphasis on composers' styles, orchestras, conductors; chamber orchestra music also included. Prerequisites: MUSA 215. (Alternate Fall)

**MUSA 304 Keyboard Literature II (3)**

Survey of keyboard literature from Chopin to the present day. Prerequisites: MUSA 231, MUSL 230, or consent of instructor. (Spring)

**MUSA 310 Accompanying Techniques (2)**

Development of accompanying proficiency, including listening skills, form, and analysis of the music to be performed; rehearsing techniques; accompanying repertoire for vocal; instrumental; and ensemble playing. Prerequisites: MUSA 214, 216 or consent of instructor. (Alternate Fall)

**MUSA 317 Orchestration (2)**

Choral and instrumental arranging; instrumentation, scoring, and analysis of harmonic styles of various composers. Students are required to compose and arrange original works. Prerequisite: MUSA 215. (Spring)

**MUSA 318 Vocal Literature (3)**

Follows the changing patterns, styles, and fashions of the secular art-song from medieval Europe to Europe and America of the day. Prerequisites: MUSA 137 or previous enrollment in private vocal studies. (Alternate Spring)

**MUSA 319 Choral Literature (3)**

Historical, analytical, and interpretive study of choral literature spanning the Renaissance through the 20th Century. Important course for those planning to direct choirs. Prerequisite: previous or concurrent enrollment in a Mesa State choir or consent of the instructor. (Alternate Fall)

**MUSA 326 Music History and Literature I (3)**

Literature and styles of the master composers of music through the Ancient, Medieval, Renaissance, and Baroque periods. Course work is designed for the music major, utilizing a lecture and listening laboratory format and one scholarly research paper of the student's choice. Prerequisite: MUSA 114. (Fall)

**MUSA 327 Music History and Literature II (3)**

Literature and styles of the master composers of music through the classic, romantic, and modern ages. Coursework is designed primarily for the music major, utilizing a lecture and listening laboratory format and one scholarly research

paper of the student's choice. Prerequisite: MUSA 114. (Spring)

**MUSA 328 Workshop in Music (1-3)**

Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers. (Fall/Spring, on demand)

**MUSA 337 Diction for Singers (3)**

Pronunciation of Italian, German, and French as applied to the performance of vocal literature. (Fall)

**MUSA 340 Teaching Elementary and General Music: Methods, Principles and Materials (3)**

For Music Education Majors: The course is designed for standards-based curriculum for elementary and general music classes. Weekly laboratory experiences focus on course content dealing with teaching competencies in elementary and general music. Also addresses how to teach literacy in the music classroom. Includes 30 hours of field experience. Prerequisites: MUSA 215, 218, 240, 250. (Alternate Fall)

**MUSA 350A Advanced Conducting, Choral (2)**

**MUSA 350B Advanced Conducting, Instrumental (2)**

More difficult techniques such as advanced meters, advanced score study, interpretive conducting and ensemble rehearsal techniques. Required of all music education majors. Prerequisites: MUSA 250. (Fall)

**MUSA 368 Advanced Jazz Improvisation (2)**

Advanced Improvisation is the continuation of Beginning Improvisation. Advanced theoretical concepts will be addressed with expansion of repertoire and improvisational patterns. Prerequisites: MUSA 268, MUSA 215, Class Piano IV/piano proficiency, or permission of instructor. (Spring)

**MUSA 395 Independent Study (1-3)**

**MUSA 396 Topics (1-3)**

**MUSA 410 Vocal Pedagogy (3)**

The physiology of the human vocal mechanism, various teaching styles, vocal problems related to various age groups, and vocal repertoire pertinent to all age groups and levels of development. Prerequisites: MUSA 137 or previous or concurrent enrollment in private vocal studies. (Alternate Spring)

**MUSA 411 Piano Pedagogy (3)**

Introduction to the field of piano teaching and learning/teaching theories with application to piano teaching. Survey of methods and literature. Instructional techniques for group and individual lesson settings. Prerequisites: MUSA 231, MUSL 230 or consent of instructor. (Spring)

**MUSA 426 Music of World Cultures (3)**

An exploration of music outside the Western Classical music tradition. Musical traditions include music of the Orient, Africa, India, and North and South American ethnic music. The course will also examine ethnic music from other world cultures such as Afro Cuban and Brazilian as well as blues

and jazz music developed in the United States. Prerequisite: MUSA 215, MUSA 231 or piano proficiency, or permission of the instructor. (Spring)

**MUSA 428 Workshop in Music (1-3)**

Consists of specialized workshops in various aspects of music made possible by visiting artists and/or lecturers. (Fall/Spring, on demand)

**MUSA 440 Teaching Vocal Music K-12: Methods, Principles, and Materials (3)**

Standards-based instruction of elementary and general music classes for Music Education majors. Training in concepts, methodology, and materials necessary to teach standards-based vocal music in public/private schools. Includes 30 hours of field experience. Prerequisites: MUSA 137, MUSL 137, or MUSP 150, MUSA 350A or 350B. (Alternate Spring)

**MUSA 441 Teaching Instrumental Music K-12: Methods, Principles and Materials (3)**

Designed for standards-based music curriculum for teaching instrumental music in the public schools. Activity will be centered on developing teaching competencies, administration of the music program, and methods, materials, equipment and technology needed for the instrumental music program. Includes 30 hours field experience. Prerequisites: MUSA 350A or 350B. (Alternate Spring)

**MUSA 442A Teaching Special Ensembles: Choral (2)**

**MUSA 442B Teaching Special Ensembles: Instrumental (2)**

Practical knowledge and methodology in the teaching of (A) Show/Jazz Choirs and (B) Marching/Jazz Bands. Students will learn the skills necessary to direct these ensembles. Includes 30 hours of field experience. Prerequisites: MUSA 215, 218, 240 and 250. Corequisites: MUSA 350A or 350B if not completed. (Alternate Fall)

**MUSA 495 Independent Study (1-3)**

**MUSA 496 Topics (1-3)**

**APPLIED MUSIC LESSONS**

Applied music lessons for credit are available to music students and as a general education choice to students concurrently enrolled in an MUSP course. Students meet weekly with an individual instructor assigned by the Music Department. An instructional fee is required, as is accompanist remuneration. Lessons may be taken twice at each level. Music and Music Theatre majors are required to attend and perform at weekly recitals as a component of applied music lessons.

Applied music lessons are offered in the following:

- MUSL 130, 230, 330, 430 Piano (Fall/Spring) (1-2)**
- MUSL 131, 231, 331, 431 Guitar (Fall/Spring) (1-2)**
- MUSL 132, 232, 332, 432 Strings (Fall/Spring) (1-2)**

- MUSL 133, 233, 333, 433 Woodwind (Fall/Spring) (1-2)**
- MUSL 134, 234, 334, 434 Brass (Fall/Spring) (1-2)**
- MUSL 135, 235, 335, 435 Percussion (Fall/Spring) (1-2)**
- MUSL 136, 236, 336, 436 Electronic Instruments (Fall/Spring) (1-2)**
- MUSL 137, 237, 337, 437 Voice (Fall/Spring) (1-2)**
- MUSL 138, 238, 338, 438 Composition (Fall/Spring) (1-2)**
- MUSL 350, 450 Conducting (Fall/Spring) (1-2)**

**PERFORMING**

Fine Arts General Education for Non-Music Majors: Any MUSP class at the 100 or 200 level may be taken by non-music majors to satisfy the fine arts credit toward general education requirements. Each ensemble may be taken twice at each level; three semesters (3 credit hours) are needed to satisfy the Fine Arts requirement.

Performance ensembles may be taken twice at each level for credit.

**MUSP 140, 240, 340, 440 Wind Symphony (1)**

A symphony comprised of serious wind and percussion students, including music majors and non-music majors, who perform a wide variety of standard and current literature. Audition with conductor required. (Fall/Spring)

**MUSP 141, 241, 341, 441 Symphony Orchestra (1)**

Ensemble designed to rehearse and perform symphonic literature as well as choral, opera and concerto repertoire. Audition required. (Fall/Spring)

**MUSP 144, 244, 344, 444 Jazz Ensemble (1)**

A group utilizing stage band instrumentation and performing many local and required concert engagements. By audition; preference given to members of Symphonic Band. (Spring)

**MUSP 145, 245, 345, 445**

- (Section A) Instrumental Ensemble – Woodwinds (1)**
- (Section B) Instrumental Ensemble – Brass (1)**
- (Section C) Instrumental Ensemble – Strings (1)**
- (Section D) Instrumental Ensemble – Percussion (1)**
- (Section E) Instrumental Ensemble – Guitar (1)**
- (Section F) Instrumental Ensemble – Piano (1)**

Groups organized upon the talents and interests of the members. Specified ensembles may be offered from time to time in the format of String Quartets, Woodwind, and Brass Choirs, etc. A minimum of one public performance per each term of enrollment is required. Prerequisite: MUSP 145B, 245B, 345B, 445B require audition by the band director. (Fall/Spring)

**MUSP 146, 246, 346, 446 Community Performance Organizations (1)**

Opportunity for students and other musicians in the community to participate in various community musical groups, such as the Grand Junction Symphony. Audition with conductor is required. (Fall/Spring)

**MUSP 148, 248, 348, 448 Chamber Orchestra (1)**

Ensemble designed to rehearse and perform chamber orchestra works. This ensemble will involve strings as well as woodwind and brass instruments. Audition required. (Fall/Spring)

**MUSP 149, 249, 349, 449 Young Artists Orchestra (1)**

Instrumental music students are provided the opportunity to perform baroque, classical, romantic and 20th century full orchestra repertoire. One rehearsal per week and at least one formal concert per semester featuring a talented soloist. Membership is by audition. (Spring)

**MUSP 150, 250, 350, 450 Concert Choir (1)**

The major large choir, open to all students and staff who enjoy singing, with final membership approved by the director. Concert Choir performs great choral literature of all types representing Mesa State College in formal concerts both on and off campus including concert tours, performing large-scale masterworks with orchestra. (Fall/Spring)

**MUSP 156, 256, 356, 456 Chamber Choir (1)**

An advanced smaller choral ensemble which performs vocal literature from Renaissance to Contemporary art music including jazz. Chamber Choir performs on and off campus, on concert tours, and at the annual Madrigal Dinners. Staff and students are eligible by audition; membership in Concert Choir generally a prerequisite. (Fall/Spring)

**MUSP 157, 257, 357, 457 Male Choir (1)**

Campus-wide chorus open to all interested students and faculty. Performs all types of music written for combined men's voices. Concertizes in conjunction with other college choral ensembles and in separate performances on-off campus. Prerequisites: Taken in sequence. Members must perform a brief audition with instructor. (Fall/Spring)

**MUSP 158, 258, 358, 458 Women's Chorus (1)**

Performances include the complete range of music written for combined women's voices, both on and off-campus, and in conjunction with the other college choral ensembles in Music Department concerts. Prerequisites: consent of director. (Fall/Spring)

**MUSP 159, 259, 359, 459 Vocal Jazz Ensemble (1)**

Exploration of wide range of vocal literature. Performances given, both on and off campus. Prerequisites: consent of instructor. (Spring)

**MUSP 162, 262, 362, 462 Combo (1)**

Interested students team up with a rhythm section in learning tunes and "head" charts, improving skills and making practical application of improvisation. (Fall/Spring)

**MUSP 164, 264, 364, 464 Commercial Big Band (1)**

A laboratory band which focuses on the swing styles of the 1940s big bands. Instruction in phrasing, interpretation, improvisation, tone production, and reading. Enrollment by audition; preference given to those enrolled in Symphonic Band. (Fall)

**MUSP 395 Independent Study (1-3)****MUSP 396 Topics (1-3)****MUSP 420 Senior Recital (1-2)**

Preparation for senior level recital in the student's performance medium with recital approved by the music faculty and recital given during the semester in which the student is registered for this course. Scholarly program notes covering historical aspects, theoretical issues, and/or performance considerations of the recital repertoire are required for the official printed senior recital program. Music Education majors take this course for one credit; Performance majors take this course for two credits. (Fall/Spring)

**MUSP 465 Opera Scenes (1)**

Provides upper division vocal performance majors and minors with an ensemble to develop and hone their vocal performance skills, in both the musical and theatrical sense. Operatic scenes will be selected for class and individual study, eventually to be presented in a public performance. Audition techniques will also be presented and practiced as part of this class, including résumé construction, repertoire selection, monologues, and mock auditions. Prerequisites: Completion of Sophomore Review, MUSA 117, MUSA 215, and piano proficiency (4 semesters). Corequisites: MUSL 337 or MUSL 437. (Alternate Spring)

**MUSP 495 Independent Study (1-3)****MUSP 496 Topics (1-3)****NURSING (NURS)**

Students may be required to purchase additional supplies and uniforms. Approximate cost is between \$300.00-500.00.

**NURS 201 Nursing Fundamentals (4)****NURS 201L Nursing Fundamentals Laboratory (3)**

Introduction to the theoretical foundations of nursing in the areas of communication, assessment and critical thinking. Economic issues influencing the professional nurse are examined and important interpersonal and psychomotor skills are developed. Three one-hour lectures and three three-hour laboratories per week. Prerequisite: acceptance into BSN program. Corequisites: NURS 202/202L, 203, 204. (Fall/Spring)

**NURS 202 Health Assessment/Promotion (3)****NURS 202L Health Assessment/Promotion Laboratory (1)**

Development of the knowledge necessary for completing an adult health assessment. History taking and physical assessment skills are utilized to develop appropriate interventions

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

designed to assist clients with health promotion and lifestyle changes. Students explore principles of health promotion through the life span in a variety of settings. Three one-hour lectures and one three-hour laboratory per week. Prerequisites: acceptance into BSN program. Corequisites: NURS 201/201L, 203, 204. (Fall/Spring)

**NURS 203 Pharmacology I (2)**

Introduction to drug therapy with the study of specific classifications, terminology, theories and techniques of safe administration. Using the nursing process, the toxicity of major drug classifications is investigated, as well as principles of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. Prerequisites: acceptance into BSN program. Corequisites: NURS 201/201L, 202/202L, 204. (Fall/Spring)

**NURS 204 Nursing Theory/Foundations (1)**

Examination of the history of professional nursing as a scientific discipline. Critical thinking and reasoning are utilized to evaluate selected nursing theories. The language and process of nursing research are introduced as a framework for making sound clinical judgments. Professional networking and legal/ethical issues will be examined. Prerequisites: acceptance in BSN program. Corequisites: NURS 201/201L, 202/202L, 203. (Fall/Spring)

**NURS 206 Advanced Concepts of Medical-Surgical Nursing I (5)**

[AAS Program only] Role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the nursing needs of adults across the life span. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in the various health care settings. Prerequisites: Completion of all general education and prerequisites. Corequisites: NURS 288. (Spring)

**NURS 210 Nursing Care of Complex Obstetrical and Pediatric Clients (5)**

[AAS Program only] Prepares the professional nurse to comprehend and apply advanced concepts in care of the high-risk child bearing family and for children with complex health problems from birth through adolescence. Emphasizes special needs and complications during the perinatal experience and altered functioning, special needs, and disease processes manifested in children. The nursing process is used as a framework to attain optimal levels of maternal-newborn and pediatric health and wellness. Legal and ethical accountability are integrated throughout the course. Critical thinking skills are utilized throughout. Prerequisites: All general education and prerequisites, and NURS 288. (Fall)

**NURS 211 Nursing Care of the Psychiatric Client (5)**

[AAS Program only] Develops concepts of psychosocial integrity and emphasizes the function and responsibility of nursing in promoting and maintaining mental health of individuals and families. This course emphasizes communication and caring through the application of the therapeutic relationship and nursing process in the care and treatment of common

clinical conditions/disorders. Prerequisites: All general education and prerequisites, and NURS 288. (Spring)

**NURS 216 Advanced Concepts of Medical Surgical Nursing II (4)**

[AAS Program only] Continues to focus on the role of the registered professional nurse as care provider, teacher, manager, professional, and advocate in meeting the complex medical and surgical health care needs of adult clients. Utilizing the nursing process, the student is expected to integrate previous learning to assist the patient and family in achieving optimal functioning in various complex health care situations and settings. Prerequisites: All general education and prerequisites, NURS 206, NURS 288. (Fall)

**NURS 217 Leadership for Professional Nursing Practice (3)**

[AAS Program only] Socializes the student into the graduate registered nurse role. The focus is on the exploration and analysis of contemporary nursing practice, current trends and issues impacting nursing care delivery. Advanced leadership and management concepts are discussed as part of the nursing role. Prerequisites: All general education and prerequisites. (Fall)

**NURS 288 Health and Physical Assessment for Nursing (3)**

[AAS Program only] Development of the knowledge necessary for completing health assessment across the life span. History taking, physical assessment skills, and principles of health promotion are utilized to develop appropriate interventions designed to assist clients with health promotion and life style changes. Prerequisites: All general education and prerequisites. Corequisite: NURS 206. (Spring)

**NURS 300 Professional Transitions (1)**

Introduction to selected concepts related to care of the adult client, the childbearing and childbearing families. Designed to facilitate the transition of the diploma and associate degree graduate to the professional practice of nursing at the baccalaureate level. Credit for previous completed nursing courses (with grades of C or better) will be held in escrow until this course has been successfully completed. (Fall)

**NURS 301 Medical/Surgical Process (3)**

**NURS 301L Medical/Surgical Process Laboratory (4)**

Application of the nursing process in the care of individuals and their families experiencing deviations from their usual levels of wellness from onset to resolution. Pathophysiological problems of moderate intensity and relative stability are explored. The nursing process is used to support the coping mechanisms of individuals and their families to assist in the regaining and maintaining of optimal wellness. Three one-hour lectures and four three-hour laboratories per week. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 302, 303, 304. (Fall/Spring)



- NURS 302 Family Nursing Through the Lifespan (3)**  
Theory of family-centered practice in nursing. Utilizing the nursing process, students gather and analyze data to formulate and evaluate interventions with families from diverse backgrounds. Selected learning experiences provide opportunities for the student to develop cognitive, psychomotor and affective competencies essential to the care of both healthy and high-risk families through the lifespan. Three one-hour lectures and one three-hour laboratory per week. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 301/301L, 303. (Fall/Spring)
- NURS 303 Professional Development (2)**  
Introduction to basic knowledge and skills related to organizational structure, systems of patient care delivery and communication within the health care team. Principles of time management, teaching-learning theories, and the role of the professional in nursing are explored. Clinical experience will be incorporated into the medical-surgical clinical lab. Awareness of the patient care environment, as well as the organization of health care delivery, will be documented through journaling. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 301/301L, 302, 304. (Fall/Spring)
- NURS 304 Pharmacology II (1)**  
Continuation of Pharmacology I covering the nursing process, principles of pharmacokinetics, pharmacodynamics, pharmacotherapeutics and toxicity of major drug classifications. Prerequisites: NURS 201/201L, 202/202L, 203, 204. Corequisites: NURS 301/301L, 302, 303. (Fall/Spring)
- NURS 312 Home Health Nursing (2)**  
Examination and comparison of specific nursing interventions unique to the field of home health care. Students enhance their ability to use nursing process with clients experiencing an acute or chronic illness outside of the acute care setting. This course synthesizes the principles of community health nursing with the theory and practice of medical/surgical and mental health nursing. Theoretical content is applied in the clinical settings of concurrent courses. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 313/313L, 314/314L, 315/315L.. (Fall/Spring)
- NURS 313 Mental Health (2)**  
**NURS 313L Mental Health Laboratory (2)**  
Development of a knowledge base of mental health and illness, emphasizing the development of interpersonal skills in the use of the therapeutic relationship. Specific learning experiences provide opportunities for the student to develop proficiency in the practice of psychiatric mental health nursing with diverse populations. Two one-hour lectures and two three-hour laboratories per week. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 312, 314/314L, 315/315L. (Fall/Spring)
- NURS 314 The Childbearing Family (2)**  
**NURS 314L The Childbearing Family Laboratory (2)**  
Study of the competencies needed to care for the diverse childbearing family through the trimesters of pregnancy. High risk and complications of pregnancy are addressed as well as critical issues of women's health care. Theoretical content is applied in acute care and community settings. Two one-hour lectures and two three-hour laboratories per week. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 312, 313/313L, 315/315L. (Fall/Spring)
- NURS 315 Pediatrics (2)**  
**NURS 315L Pediatrics Laboratory (1)**  
Emphasis on use of the nursing process in the care of children and adolescents experiencing alterations in wellness. The clinical component provides experience with clients in acute care and community settings. Two one-hour lectures and one three-hour laboratory per week. Prerequisites: NURS 301/301L, 302, 303, 304. Corequisites: NURS 312, 313/313L, 314/314L. (Fall/Spring)
- NURS 395 Independent Study (1-3)**  
**NURS 396 Topics (1-3)**
- NURS 403 Public Health (2)**  
**NURS 403L Public Health Laboratory (2)**  
Theoretical basis for the practice of public health nursing. Students investigate the principles and practice of public health nursing including epidemiological investigation, environmental health issues, methods of community health assessment. And interventions with selected population groups. Application of course content is demonstrated in the concurrent clinical course. One one-hour lecture and two three-hour laboratories per week. Prerequisites: NURS 312, 313/313L, 314/314L, 315/315L. Corequisites: NURS 406/406L, 407L, 415. (Fall/Spring)
- NURS 406 Advanced Medical/Surgical (3)**  
**NURS 406L Advanced Medical/Surgical Laboratory (3)**  
Advanced medical-surgical concepts essential for nursing care of adults requiring intervention in relation to complex multi system illness or injury. The clinical practicum provides opportunity for application of nursing care in institutional and community settings. Three one-hour lectures and three three-hour laboratories per week. Prerequisites: NURS 312, 313/313L, 314/314L, 315/315L. Corequisites: NURS 403/403L, 407L, 415. (Fall/Spring)
- NURS 407L Research Clinical (1)**  
Research with an emphasis on the assessment of the outcomes of health promotion and health care interventions. Research questions relevant to clinical practice are developed, with projects being completed the following semester. Prerequisites: NURS 312, NURS 313/313L, NURS 314/314L, NURS 315/315L. Corequisites: NURS 403/403L, NURS 406/406L, NURS 415. (Fall/Spring)

**NURS 411 Leadership** (2)  
**NURS 411L Leadership Laboratory** (1)  
 Use of personal characteristics of the nurse in development of leadership and management strategies. Leadership and management theory are presented. The role of the professional nurse as change agent in shaping health care for the future is explored. Two one-hour lectures and one three-hour laboratory per week. Prerequisites: NURS 403/403L, 406/406L, 407L, 415. Corequisites: NURS 412L, 414. (Fall/Spring)

**NURS 412L Senior Specialty** (4)  
 Development of specialty-focused knowledge and skills in a specified area of interest. Knowledge and skills from basic and upper-division general education and nursing disciplines are integrated when implementing increasingly complex roles to deliver quality nursing care to individuals and groups in a focused clinical area. Prerequisites: NURS 403/403L, 406/406L, 407L, 415. Corequisites: NURS 411/411L, 414. (Fall/Spring)

**NURS 414 Senior Research Project** (2)  
 In-depth study and practical application of students' research knowledge base. Prerequisites: NURS 403/403L, 406/406L, 407L, 415. Corequisites: NURS 411/411L, 412L. (Fall/Spring)

**NURS 415 Business of Health Care** (2)  
 Appraisal of socio-economical factors as they challenge nursing's ability to provide the quality of caring that is needed by clients. Prerequisites: NURS 312, 313/313L, 314/314L, 315/315L. Corequisites: NURS 403//403L, 406/406L, 407L. (Fall/Spring)

**NURS 495 Independent Study** (1-3)

**NURS 496 Topics** (1-3)

## **ADMINISTRATIVE OFFICE TECHNOLOGY (OFAD)**

**OFAD 101 Office Accounting** (3)  
 For persons keeping accounting records in a legal, medical, or other professional office or those who will work in the accounting department of a small retail firm. Fundamental accounting principles including opening through closing a set of books. Not advised for four-year accounting majors. (Fall/Spring)

**OFAD 105 Ten-Key Operations** (2)  
 Skill development essential to accountants in the operation of the ten-key electric calculator with emphasis on both speed and accuracy. (Fall/Spring)

**OFAD 147 Medical Terminology** (3)  
 Basic medical terminology as applied to major systems of the body and related diseases. Includes special applications related to medical practice with emphasis on spelling. (Alternate Fall/Spring)

**OFAD 153 Beginning Word Processing** (3)  
 Introduces word/information processing concepts, functions, and terminology; provides an overview of the document production cycle with related hardware and software; provides in-depth, hands-on experience with a leading microcomputer word processor. Such features as creating a document, revising, formatting, paginating, merging, document assembly, disk management, and other relevant features will be covered. Two to three hours per week of arranged laboratory is required in addition to regularly scheduled classes. (Alternate Fall and Spring)

**OFAD 201 Office Management** (3)  
 Office organization including work in the office, office layout, equipment, supplies and forms, personnel problems, costs, control of office work, methods of recognizing and solving office communication problems, awareness of successful human relations, changing technologies and philosophies of business, and technical terminology used in business. (Spring)

**OFAD 202 Records Management** (3)  
 Institutional and legal requirements for developing, storing and maintaining business and personnel information systems. Management of computerized and non-computerized systems emphasized including storage and retrieval using alphabetic, geographic, numeric and subject methods for manual, micro-records, and computerized systems; and control of records management programs. (Alternate Fall and Spring)

**OFAD 203 Medical Records Management** (1)  
 Legal requirements for developing, storing, and maintaining medical records that support the patient privacy protections set forth by industry standards. Prerequisite: OFAD 202. (Fall/Spring)

**OFAD 206 Computerized Office Accounting** (3)  
 Basic accounting principles applied by using computer software. Prerequisite: OFAD 101. (Spring)

**OFAD 221 Transcription Machines** (3)  
 Fundamental skills, speed, and accuracy of business or medical transcription on electronic equipment. Prerequisite: consent of instructor. (Fall/Spring)

**OFAD 244 Legal Office Procedures** (3)  
 American court systems, branches of civil and criminal law, and secretarial procedures relating to ethical behavior and office management techniques in a law office. Includes practice in preparing legal forms and documents with emphasis on speed, accuracy, and mailability, and procedures to help develop confidence and poise necessary in a professional office. Prerequisite: sophomore standing. (Fall)

**OFAD 248 Medical Coding** (3)  
 Basic coding concepts, practical applications, Medicare rules, and billing tips. Basic procedures used with the CPT, HCPCS, and ICD9 coding systems. Prerequisites: OFAD

147, OFAD 253, sophomore standing or consent of instructor. (Spring)

**OFAD 249 Medical Office Procedures (3)**

The knowledge and skills needed to work successfully in a medical office. Emphasis in communications, secretarial responsibilities, safety and security, different health insurances utilized, medical office management, and the various kinds of office equipment found in a medical office. Physician schedules will be a part of the course. Prerequisites: OFAD 147, 253, sophomore standing or consent of instructor. (Spring)

**OFAD 253 Intermediate Word Processing (3)**

Continuation of OFAD 153. Provides hands-on experience with the more advanced features of word processing, including graphics and desktop publishing. Prerequisite: OFAD 153. (Spring)

**OFAD 266 Advanced Word Processing (3)**

Office standards examined and applied to the production of business documents on microcomputers and electronic typewriters; document analysis procedures and productivity measurement techniques presented with emphasis on decision-making and problem-solving. Prerequisite: OFAD 253. (Spring)

**OFAD 270 Integrated Office Applications (3)**

Microcomputer applications used in the office automation environment, including accounting applications, integrated software (word processing, spreadsheets, data base, graphs), desktop managers, graphics, telecommunication, electronic mail; hands-on experience according to student's major and software availability. Arranged laboratory is required in addition to regularly scheduled classes. Prerequisites: CISB 101. (Fall)

**OFAD 293 Cooperative Education (3)**

Practical uses of educational training through the joint supervision of a participating employer and a designated faculty member. Prerequisite: Sophomore status. (Spring)

**OFAD 295 Independent Study (1-2)**

**OFAD 296 Topics (1-3)**

## **PHILOSOPHY (PHIL)**

---

**✓ PHIL 105 Critical Thinking (3)**

An introduction to the basic skill of critical reading, writing, and thinking needed for the intelligent, responsible, and ethical construction of one's worldview, conduct of one's life, and execution of one's civic duties. Topics include: argument identification, analysis, and construction; avoidance of common fallacies of reasoning; common deceptive and manipulative uses of language; writing clear and convincing argumentative essays. (Fall/Spring)

**✓ PHIL 110 Introduction to Philosophy (3)**

Includes an orientation to the discipline's concerns, branches, major schools of thought, and its relationship to other disciplines; a selection of readings from philosophers of all historical periods concerning major philosophical issues; practice in the process of philosophical reasoning, the critical analysis of philosophical writings, and the most basic rules of logic. (Fall/Spring)

**PHIL 275 Introduction to Logic (3)**

Forms of reasoning, valid versus fallacious inferences, strong versus weak arguments. Designed to increase the ability to reason clearly and correctly and follow and critically evaluate the reasoning of others. (Fall/Spring)

**PHIL 296 Topics (1-3)**

**PHIL 320 Philosophy of Religion (3)**

Exploration of fundamental issues regarding religion and examination of the principles of inquiry involved in dealing with such issues philosophically. Issues include the concept of God, arguments for the existence of God, the relationship between faith and reason, the validity of religious experience, pluralism in world religions, etc. Prerequisites: PHIL 110 or 275, or consent of instructor. (On demand)

**PHIL 352 Ethics (3)**

Introduction to theoretical and applied Ethics. Major moral philosophers and moral theories are surveyed; a general approach to moral reasoning is developed. This is then applied to the discussion of recent writings on such issues as euthanasia, abortion, war, capital punishment, affirmative action, etc. Prerequisites: PHIL 110, or 275 or consent of instructor.

**PHIL 373 History of Philosophy I (3)**

Philosophical problems including relation of the individual to the state, death and the afterlife, the physical universe, and existence of God, as seen through Greek and Medieval thinkers such as Plato, Aristotle, Augustine, and Thomas Aquinas. Prerequisites: PHIL 110, or 275, or consent of instructor. (Every third semester)

**PHIL 374 History of Philosophy II (3)**

Continuation of PHIL 373, with topics as seen through thinkers of the modern period, such as Hobbes, Berkeley, Kant, Nietzsche, and the Existentialists. Prerequisites: PHIL 110, or 275, or consent of instructor. (Every third semester)

**PHIL 375 Twentieth-Century Philosophy (3)**

The main philosophical themes and schools of recent philosophy. Characteristic methods and positions of such schools as Pragmatism, Phenomenology, Existentialism, and various Analytic Movements – especially as they bear on central philosophical problems regarding truth, meaning, knowledge of the external world, and the relationship between language and reality. Prerequisites: PHIL 110, or 275, or consent of instructor. (Every third semester)

- PHIL 395 Independent Study** (1-3)  
**PHIL 396 Topics** (1-3)  
**PHIL 495 Independent Study** (1-3)  
**PHIL 496 Topics** (1-3)

## PHYSICS (PHYS)

---

**PHYS 100 Concepts of Physics** (3)  
 A non-mathematical survey of fundamental concepts in physics. Particular attention is given to the cultural development of these ideas. The roots of physics are traced from early Greek thought through the Renaissance. Next, the Newtonian revolution of the seventeenth and eighteenth centuries is studied, followed by the nineteenth-century rise of field theory and thermodynamics. The course concludes with a discussion of the simple ideas underlying relativity and modern quantum theory. These latter topics include the elementary building blocks of matter and the unification of force. Lecture demonstrations are used throughout the course. (Fall/Spring)

**PHYS 101 Elementary Astronomy** (3)  
 A nonmathematical introduction to modern stellar and extragalactic astronomy. Topics include planetary exploration, stellar evolution, galaxies, and the big-bang cosmology. Current research results are discussed. Evening observing will be scheduled when possible. (Fall/Spring)

**PHYS 105 Physics by Inquiry** (2)  
**PHYS 105L Physics by Inquiry Laboratory** (1)  
 Laboratory-based introduction to physics and the physical sciences. Starting from their own observations, students develop basic physical concepts, use and interpret different forms of scientific representations, and construct explanatory models with predictive capabilities. Topics include properties of matter, heat and temperature, magnets, electric circuits, motion, and astronomy. Recommended for prospective K-12 teachers. (Fall)

✓ **PHYS 111, ✓ PHYS 112 General Physics** (4,4)

✓ **PHYS 111L, ✓ PHYS 112L General Physics Laboratory** (1,1)

A survey of physics fundamentals. Topics include mechanics, electricity, magnetism, thermodynamics, sound, optics, and modern physics. Problem solving is emphasized. Prerequisite: a mastery of algebra and trigonometry. PHYS 111, 111L is a prerequisite for PHYS 112, 112L. Four lectures and one two-hour laboratory per week. (Fall/Spring)

✓ **PHYS 131 Fundamental Mechanics** (4)

✓ **PHYS 131L Fundamental Mechanics Laboratory** (1)

First of a foundation series of three physics courses for scientists and engineers. The Newtonian dynamics of matter is presented, along with the laws of momentum and energy conservation. Specific force laws are used to analyze problems

drawn from engineering, biology, astronomy, and physics. Galilean relativity is discussed, and cultural as well as philosophical and practical aspects of physics are studied. The language of calculus and vector spaces is used throughout the course. Prerequisite: MATH 151 (may be taken concurrently). Four lectures and one two-hour laboratory per week. (Fall/Spring)

**PHYS 132 Electromagnetism and Optics** (4)

**PHYS 132L Electromagnetism and Optics Laboratory** (1)

The second foundation physics course for scientists and engineers. The field is introduced with static electric and magnetic fields, both in free space and in matter. Electrodynamics is developed, including a discussion of Kirchoff's laws and circuit concepts. Maxwell's equations are presented and electromagnetic radiation discussed. The course concludes with an introduction to optics. Both geometric and the wave model for light are studied. The associated laboratory course will include experiments on fields, circuits, and optical systems. Prerequisites: PHYS 131, 131L, and MATH 152 (may be taken concurrently). Four lectures and one two-hour laboratory per week. (Fall/Spring)

**PHYS 196 Topics** (1-3)

**PHYS 231 Modern Physics** (3)

The third foundation physics course for scientists and engineers. Relativity and quantum theory are the themes of this course. Relativistic kinematics and dynamics are studied. Quantum theory is introduced in the examination of black-body radiation, the photoelectric effect, and the energy quantization of atoms. The Schrodinger wave equation is used to analyze simple quantum systems. The course concludes with applications drawn from such topics as atomic and molecular physics, solid-state physics, nuclear and high-energy physics, and astrophysics. Prerequisites: PHYS 132, 132L, and MATH 253 (may be taken concurrently). (Fall/Spring)

**PHYS 232 Modern Physics II** (3)

A continuation of Modern Physics I. This course emphasizes applications of quantum mechanics to atoms and molecules, metals and semiconductors, and nucleus. The course will also provide an introduction to statistical and thermal physics and high energy particle physics. Prerequisite: PHYS 231. (Spring)

**PHYS 251 Electronics for Scientists** (3)

This laboratory-based course is an introduction to electric circuits and electronic instrumentation for scientists. The course will emphasize a practical approach, with students learning about electronic devices and how they work by building working circuits. Topics explored include passive circuits with resistors and capacitors, including applications in electric filtering; diodes; transistors; op-amps; timing circuits; feedback and amplification; and digital circuits. Prerequisites: PHYS 132 or PHYS 122. (Fall)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**PHYS 252 Intermediate Laboratory (2)**

Students will perform experiments in optics, acoustics, and modern physics. Experiments will include measuring the speed of light, measuring the wavelength of atomic discharge lines, X-ray diffraction, and measuring  $h/e$  among others. Emphasis will be on experimental design, use of modern instrumentation, preparation of lab reports, and data analysis. Prerequisite: PHYS 231. (Spring)

**PHYS 296 Topics (1-3)****PHYS 300 New Directions in Science (3)**

A survey of recent developments in science. This course is open to qualified students in liberal arts as well as the sciences. Faculty from various disciplines will participate. Topics will be drawn from astronomy, biology, chemistry, geology, physics, engineering, and applied mathematics. Permission of instructor required. (Fall)

**PHYS 311 Electromagnetic Theory I (3)**

A mature study of electromagnetic fields. The course begins with a review of Maxwell's equations. Static fields are analyzed and multipole expansion techniques exploited. Fields in dielectric and magnetic materials are then examined, and capacitance and inductance introduced. Electrodynamics is developed, along with concepts of field momentum and energy. Prerequisites: PHYS 132, PHYS 132L, MATH 260, MATH 360 (may be taken concurrently). (Fall)

**PHYS 312 Electromagnetic Theory II (3)**

A continuation of PHYS 311. Electromagnetic waves were studied. Wave propagation in conducting and nonconducting media is examined, along with dispersion phenomena. Waveguides are examined. Electromagnetic field radiation is studied, both for point charges and for arbitrary charge distributions. The course concludes with a reformulation of electromagnetism in the language of special relativity. Prerequisite: PHYS 311. (Spring)

**PHYS 321 Quantum Theory I (3)**

A foundation course in quantum physics. No prior background in modern physics is assumed of students. The failure of classical physics is first discussed, with particular attention given to thermal radiation, photons, the Rutherford-Bohr atom, and the de Broglie wave hypothesis. The Schrodinger wave theory for single particles is then used to introduce modern concepts. Measurement theory, wave packets, square-well potentials and harmonic oscillators are examined in a one-dimensional context. The time-dependent and stationary-state formalisms are both developed. The entire subject is set in the frame-work of Hilbert space, and operator algebra is used throughout. Prerequisite: PHYS 232. (Fall)

**PHYS 331 Advanced Laboratory I (2)**

A course in experiment design and technique. Laboratory investigations provide experience in instrumental methods, planning of laboratory experiments, data analysis, preparation of reports according to professional standards, and train-

ing in the use of computers for data acquisition and processing. The experiments to be performed are selected from electromagnetism, atomic, nuclear, and solid-state physics. Prerequisite: PHYS 252. (Fall/Spring)

**PHYS 342 Advanced Dynamics (3)**

An in-depth survey of classical mechanics. Topics include Newtonian dynamics, conservation laws, oscillating systems, gravitation, the Lagrangian and Hamiltonian formulation of mechanics, orbital and central force motion, systems of particles, non-inertial reference frames, rigid bodies, coupled oscillations, and waves on a string. Prerequisites: PHYS 131 and MATH 260 (Fall)

**PHYS 352 History and Philosophy of Physics (3)**

Material varies from year-to-year. The course addresses problems in the interpretation and development of physics. Case studies of crucial experiments are analyzed. The interaction of physics with other philosophical and cultural pursuits is discussed. Prerequisite: one year of physics or consent of instructor. (Fall/Spring, on demand)

**PHYS 362 Statistical and Thermal Physics (3)**

A study of the physics of bulk matter. Beginning with fundamental principles of quantum mechanics, statistical methods are employed to explain the macroscopic laws of thermodynamics and to make detailed predictions about the large-scale behavior of solids, liquids, and gases. Applications include the specific heat of solids, thermal radiation, magnetic susceptibilities, stellar equilibrium and chemical reactions. Prerequisite: PHYS 231, MATH 260. (Fall)

**PHYS 395 Independent Study (1-3)****PHYS 396 Topics (1-3)****PHYS 422 Quantum Theory II (3)**

General Quantum Theory of Angular Momentum, including as special cases, spin angular momentum and orbital angular momentum; Central-force problem; Quantum Theory of Hydrogen atom; Quantum Theory of many-particle systems. Approximate methods: Time-independent and time-dependent perturbation theories. Some practical applications of perturbation theories; Atoms in electric and electro-magnetic fields. Prerequisites: PHYS 321 and MATH 360 (may be taken concurrently). (Fall)

**PHYS 432 Nuclear and High-Energy Physics (3)**

An introduction to the structure and interactions of nuclear and subnuclear particles. Topics include a survey of the intrinsic properties of nuclei, descriptions of various nuclear models, studies of radioactivity and nuclear reactions, and an overview of the technologies of high-energy accelerators and detectors. The course concludes with an introduction to the properties and structures of elementary particles and discussions of current developments in unified theories of force. Prerequisite: PHYS 322. (Spring, alternate years)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**PHYS 441 Solid State Physics (3)**

The structure and properties of solids. This course is a study of the crystalline state of matter, including crystal classifications, vibrational specific heats, electronic structures and conductivities, cohesive energies, magnetic susceptibility, and optical properties. Prerequisite: PHYS 321. (Fall)

**PHYS 471 Computational Physics I (3)**

A foundation course in Computational Physics which requires skills of both theoretical and experimental physics. This is a modern field in which computers are used to solve physics problems whose complexity places them beyond analytic solution. Topics discussed include Fitting and Experimental Spectrum, Random Walk Simulation, Monte Carlo Applications to Radioactive Decay, Quantum Eigenvalues, Particle in a Box. Prerequisites: CSCI 112, PHYS 231. Corequisite: MATH 369 (Spring)

**PHYS 472 Computational Physics II (3)**

A continuation of PHYS 471. Computers are used to solve more complex problems in physics. Topics include anharmonic oscillations, nonlinear systems, matrix computing, k-space Schrodinger equation, quantum scattering in k-space, thermodynamic simulations, the Ising Model, electrostatic potentials. Prerequisites: PHYS 321, PHYS 471. (Alternate Fall)

**PHYS 473 Modern Optics (3)**

Modern principles and applications of optics. Models for light are reviewed and extended. Interferometry and coherence theory are studied. The Fourier transform description of images is introduced and optical systems analyzed. Diffraction theory is used in a number of applications. Anisotropic media and polarization phenomena are studied. Radiometry, light sources, and optical detectors are discussed. The course concludes with an introduction to quantum optics and a survey of optical processes in semiconductors. Prerequisite: PHYS 321. (Spring)

**PHYS 482 Senior Research (1)**

An individual research project, supervised by a faculty advisor. The project may be selected from experimental or theoretical topics. The research concludes with a formal report written in accordance with The American Institute of Physics Style Manual. This course is normally taken twice in the senior year. (Fall/Spring)

**PHYS 494 Seminar (1)**

A forum for topical physics. In this seminar, faculty and students of physics participate in both informal discussions and formal oral presentations of selected topics of scientific interest, including significant current advances and crucial historical developments. The course may be repeated for a maximum of four semester hours of credit. Prerequisite: upper division standing and consent of instructor. (Fall/Spring)

**PHYS 495 Independent Study (1-3)****PHYS 496 Topics (1-3)****POLITICAL SCIENCE (POLS)****✓ POLS 101 American Government (3)**

Structures and functions of the American political system and the constitutional development of federalism and separation of powers. Also, citizen participation and influence in politics, the congress, presidency and the supreme court, and public policy including civil rights and liberties. (Fall/Spring)

**POLS 236 State and Local Government (3)**

Theories of state formation and constitutional development, city charters, county government, and intergovernmental relations with emphasis on Colorado. Prerequisites: POLS 101 or consent of instructor. (Fall)

**✓ POLS 261 Comparative Politics (3)**

Introduction to conceptual models and approaches utilized in the comparative study of nations and their politics. Application of these theories to selected democratic, communist, and developing political systems. (Fall/Spring)

**POLS 310 Development of the American Constitution (3)**

A study of the historical development of the U. S. Constitution. Particular emphasis will be placed on the ideological and political origins of the constitution and constitutional change through formal amendments, judicial interpretation, and the political process. Prerequisite: POLS 101 or consent of instructor. (Alternate Spring)

**POLS 324 The Legislative Process (3)**

A study of the legislative process emphasizing the U.S. Congress. Attention will be given to the development of legislative systems, the operation of legislatures, the election of legislators, and a comparison with legislatures in other national states. Prerequisites: POLS 101 or consent of instructor. (Spring)

**POLS 325 The American Presidency (3)**

A study of the American chief executive, emphasizing the historical development of the office, the various functions of the modern chief executive and a brief comparison with the executive officer of other national states. Prerequisites: POLS 101 or consent of instructor. (Fall)

**POLS 328 The American Court System (3)**

The American court system; local, state, and national, including consideration of the impact of prosecutors, defense personnel, judges, and other factors on court decisions and the criminal justice system. Prerequisites: POLS 101 or ADJU 201. (Spring)

**POLS 342 Public Administration (3)**

Historical development of public administration including organizational structure and theory, management, personnel administration, fiscal administration, and administrative responsibility. Prerequisites: POLS 101 or consent of instructor. (Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**POLS 352 Religion and Politics (3)**  
The interactions of religion and politics in the United States, several liberal democracies and within international relations. (Alternate Fall)

**POLS 355 Politics in the Information Age (3)**  
Study of the impact of the "information" age on American politics and democracy. Prerequisites: POLS 101 or consent of instructor. (Alternate Spring)

**POLS 365 European Government and Politics (3)**  
Study of the political systems of Great Britain, France, Federal Republic of Germany, Soviet Union and other European nations. Emphasizes political development, the sources, processes and evaluation of policy making, and contemporary challenges facing these countries. Prerequisites: POLS 261 or HIST 102. (Fall)

**POLS 370 World Politics (3)**  
Introduction to the structures, processes, and behaviors shaping the world political configuration. Emphasis on states and their interactions as well as non-state actors and the cultural, economic and environmental forces, issues, and resources influencing an emerging world community. Prerequisites: POLS 261 or HIST 102. (Spring)

**POLS 395 Independent Study (1-3)**

**POLS 396 Topics (1-3)**

**POLS 412 Constitutional Law (3)**  
An analysis of American constitutional theory as articulated by the U. S. Supreme Court. Specific topics include the nature of judicial review, the powers of the President and Congress, federalism, the regulation of commerce and the development of substantive due process. Prerequisite: POLS 101 or consent of instructor. (Spring)

**POLS 413 Civil Liberties (3)**  
A study of the constitutional relationship between the individual and the state. Particular emphasis will be placed on First Amendment freedoms of speech, press, and religious belief, as well as theories of due process and equal protection. Prerequisite: POLS 101 or consent of instructor. (Alternate Fall)

**POLS 452 Political Theory: Classical and Medieval (3)**

**POLS 453 Political Theory: Modern (3)**  
Study of the development of political theory in the Western tradition. Emphasizes the teaching of main thinkers: Socrates, Plato, Aristotle, Augustine, Aquinas, More, Machiavelli, Hobbes, Locke, Rousseau, Mill, and Marx. Develops ideas in relation to historical and cultural contexts, textual consistency, and the evolving tradition of political discourse in Western civilization. (Fall for POLS 452/Spring for POLS 453)

**POLS 475 American Foreign and National Security Policy (3)**

American foreign and national security policy with emphasis on 1945 to the present and beyond. Foreign and domestic factors shaping policy, the mechanisms and dynamics of policy making, the role of perception and motives underlying decision and action, and case studies of historical crises and contemporary debates are examined. (Spring)

**POLS 488 Environmental Politics and Policy (3)**  
An introduction to the political issues and problems associated with patterns of socio-economic growth and its environmental impact at both domestic and global levels of analysis. Prerequisites: POLS 101 or consent of instructor. (Fall)

**POLS 490 Senior Seminar for Political Science (3)**  
Arranged tutorials and seminars with political science faculty and students, design and execution of a research project, and submission of a senior thesis. Prerequisites: STAT 200, SOCI 310, and senior standing. (Fall)

**POLS 495 Independent Study (1-3)**

**POLS 496 Topics (1-3)**

**POLS 499 Internship (1-15)**  
May be performed in areas relating to Political Science, such as civic, political, or legal. Internships will be conducted in Mesa County, the Denver legislature, or in Washington, D.C. Prerequisites: junior or senior standing. (Summer/Fall/Spring)

## **PSYCHOLOGY (PSYC)**

---

✓ **PSYC 150 General Psychology (3)**  
Examines the fundamental principles of psychology. (Fall/Spring)

**PSYC 200 Psychology of Human Adjustment (3)**  
Problems of mental health and the strategies useful in the pursuit of effective living in today's society. Introduces abnormal psychology, emphasizing prevention of serious problems through understanding change and growth in the modern world. (Spring)

**PSYC 233 Human Growth and Development (3)**  
Developmental principles, ages and stages of the life span, and adjustment techniques. Not intended for behavioral science majors. (Fall/Spring)

**PSYC 310 Child Psychology (3)**  
A study of the principles of human development and psychology from conception to puberty. Prerequisites: PSYC 150. (Fall)

**PSYC 311 Quantitative Research Methods (3)**  
Application of statistics in psychological research with an emphasis on the selection of appropriate quantitative techniques, computer analysis of data, and interpretation of statistical results within the context of the research endeavor.

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

Topics to be covered include descriptive statistics, hypothesis testing, parametric and non-parametric statistics. Prerequisites: PSYC 150, STAT 200; must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog. (Spring)

**PSYC 312 Experimental Psychology (3)**

**PSYC 312L Experimental Psychology Laboratory (1)**  
Fundamentals of experimental methodology. Application of principles of laboratory research in areas of psychophysics, learning and memory, and biofeedback. Formal reports of projects required. Three lectures and one two-hour laboratory per week. Prerequisites: PSYC 150, STAT 200; must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog; consent of instructor. (Spring)

**PSYC 314 Psychology of Learning (3)**

**PSYC 314L Psychology of Learning Laboratory (1)**  
Classic and modern explanations of the phenomena of learning in both lower animals and humans. Laboratory experiments in classical and operant conditioning with formal scientific reports required. Three lectures and one two-hour laboratory per week. Prerequisites: PSYC 150, STAT 200; must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog; consent of instructor. (Fall)

**PSYC 320 Social Psychology (3)**

Social influences upon behavior with consideration given to topics such as: social perception, attitude formation and change, communication, and leadership. Prerequisites: PSYC 150. (Fall/Spring)

**PSYC 325 Environmental Psychology (3)**

Presentation and discussion of ways in which psychology can redefine and help solve some current environmental problems. Prerequisites: PSYC 150 or consent of instructor. (Fall)

**PSYC 330 Psychology of Adolescents and Young Adults (3)**

Study of principles of human development (biological, cognitive, and social/emotional) from puberty through young adulthood. Prerequisites: PSYC 150. (Fall)

**PSYC 332 Individual and Group Differences (3)**

The ways and extent to which individuals and groups differ from one another and of the factors responsible for those differences. Prerequisites: Must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog. (On demand)

**PSYC 335 Psychology of Women (3)**

A brief account of the role of women in mythology and history will be followed by coverage of women's heritage in psychology. Then gender specific aspects of physical, psychological and social development will be covered. Current areas of interest will be included, e.g., communication, work-related issues, relationships. Prerequisites: PSYC 150. (Fall)

**PSYC 340 Abnormal Psychology (3)**

Concepts related to psychopathology and personality disorders including functional causation, general psychological theory, and behavior deviation patterns. (Fall/Spring)

**PSYC 350 Psychology of Adulthood (3)**

Study of principles of human development (biological, cognitive, and social/emotional) from the latter part of young adulthood through late adulthood. Prerequisite: PSYC 150. (Spring)

**PSYC 360 Sport Psychology (3)**

Introduction to the theories and research in Sport Psychology, including topics such as aggression and violence in sports, psychological characteristics of participants, sexual identity and motivation. Prerequisites: PSYC 150. (Alternate Spring)

**PSYC 370 Cross-Cultural Psychology (3)**

Survey of theory and methods in cross-cultural psychology. Prerequisite: PSYC 150. (Spring)

**PSYC 380 Comparative Psychology (3)**

Study of animal behavior. Topics will include communication, learning, memory, intelligence and social behavior in various animal populations. Prerequisite: PSYC 150. (Alternate Fall)

**PSYC 395 Independent Study (1-3)**

**PSYC 396 Topics (1-3)**

**PSYC 400 Psychological Testing (3)**

Theory, problems, methods, and content of psychological measurement, including concepts of the purpose of testing, test administration and scoring, standardization, reliability, validity test evaluation, and a survey of the major tests used in educational and psychological testing. Prerequisites: Must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog. (Fall)

**PSYC 410 Drugs and Human Behavior (3)**

Study of pharmacological effects and behavioral consequences of self-administered depressants, stimulants, and euphorians, of marijuana, alcohol and tobacco, and of medicines. Prevention of drug-related problems is considered briefly. Prerequisite: PSYC 150. (Fall)

**PSYC 412 Industrial and Organizational Psychology (3)**

Psychological principles applied to formal, productive organizations such as businesses, governments, and schools. Personnel selection, placement, training, evaluation, motivation to work, job satisfaction, and morale are examined. Counts as a management course for BBA candidates. Prerequisites: PSYC 150, and STAT 200 or 214, or consent of instructor. (Fall)

**PSYC 414 Systems and Theories of Psychology (3)**

Systems and theories of modern psychology and the development of scientific psychology since 1879. Prerequisites: Must meet "3. Special Requirements" specified for the



Psychology B.A. program in this catalog; and at least 12 semester hours upper division Psychology course work passed with at least a "C". (Fall/Spring)

**PSYC 416 Memory and Cognition (3)**

Study of the mental processes that underlie our abilities to recognize stimuli, think, remember, learn language, and solve problems. Current research in each of these areas will be discussed. Includes a research paper written in APA style. Prerequisites: Must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog, or consent of instructor. (Spring)

**PSYC 420 Personality (3)**

Examination of personality psychology from the time of Freud through the present. Theories and various approaches to understanding the development and functioning of both the general and the unique in personality are emphasized. Prerequisite: PSYC 150, recommend PSYC 400; must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog. (Spring)

**PSYC 422 Sensation and Perception (3)**

Study of the human senses, especially vision and hearing, and of people's meaningful organization of sensory information. Prerequisites: PSYC 150; STAT 200; must meet "3. Special Requirements" specified for the Psychology B.A. program in this catalog. (Spring)

**PSYC 425 Forensic Psychology (3)**

Introduction to the production and application of psychological knowledge to the civil and criminal justice systems. Prerequisite: PSYC 150 (Spring)

**PSYC 430 Biopsychology (3)**

The biological bases of the behaviors of the organism, emphasizing the structure and function of the nervous system. The role of biological factors in such behaviors as sleep, sexual behavior, drug addiction, emotion, etc. will be examined. Prerequisites: PSYC 150; biology course recommended. (Spring)

**PSYC 495 Independent Study (1-3)**

**PSYC 496 Topics (1-3)**

## **PSYCHOLOGY – COUNSELING (PSYP)**

---

**PSYP 320 Career Development (3)**

Theories of, and factors influencing, career development such as assessment, career maturity, decision making, problem solving, and planning. Current developments in adult career and life development will be discussed including life stages, transitions, midlife crisis, stress, and adjustments necessary for career development effectiveness. Prerequisites: PSYC 150 or consent of instructor. (Fall)

**PSYP 324 Career Counseling (3)**

Types and sources of career information and its various uses in career counseling with special emphasis on decision making theories and processes. Prerequisites: PSYC 150 or consent of instructor. (Fall)

**PSYP 396 Topics (1-3)**

**PSYP 410 Introduction to Marriage and Family Counseling (3)**

Key theories and approaches for diverse problem areas in Marriage and Family Counseling, including domestic violence and substance abuse. Explore career options and training for counselors. Prerequisite: PSYC 150 or SOCO 144. (Fall)

**PSYP 420 Counseling Processes and Techniques (3)**

Counseling principles and practices which facilitate interpersonal communication and effective personal and social development. Counseling skills in attending behavior, listening, problem exploration, responding, understanding, and modes of action are examined, discussed and applied in classroom counseling situations. Prerequisites: PSYC 150 or 340; or consent of instructor. (Spring)

**PSYP 422 Psychological Interviewing (3)**

Psychological interviewing techniques, methods, and interpretation will be examined using the DSM-IV. Interview types will include counseling, intake, assessment, and diagnosis. Prerequisites: PSYC 150, 340 and 400. (Spring)

**PSYP 424 Group Processes (3)**

Dynamics, procedures and processes of the group. Focus will be on understanding self and learning how to help others develop self-understanding as well as personal and social skill. Prerequisites: PSYC 150, 320, 420. (Fall)

**PSYP 496 Topics (1-3)**

**PSYP 497 Practicum (4)**

Interpersonal training and counseling practice under professional supervision. A typed paper/journal must be submitted for approval and course credit. Prerequisite: senior status and consent of instructor. Practicum must be arranged for the semester prior to enrollment. (Fall/Spring)

**PSYP 499 Internship (4)**

Counseling experience in external field locations according to needs and career goals of the student. A typed paper/journal must be submitted for approval and course credit. Prerequisite: consent of instructor. Internship must be arranged for the semester prior to enrollment. (Fall/Spring)

## RADIOLOGIC TECHNOLOGY (RTEC)

---

### RTEC 114 Radiographic Clinical Experience I (2)

Introduces the clinical education experience in both the laboratory and at the clinical education center. This course is divided into two eight-week sessions. The first portion will be spent in the Autotutorial Laboratory on campus and the second portion will be spent at an assigned clinical education site. Corequisites: RTEC 121, 121L, 122, 122L, 120, 125. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology Program.

### RTEC 120 Introduction to Radiologic Technology and Patient Care (3)

Introduction to radiologic technology with emphasis on the education program, the profession, and the health-care delivery system. Fundamentals of patient care including ethics, professional conduct, communication, radiation protection and patient management. Study of medical terminology is included. Corequisites: RTEC 114, 121, 121L, 122, 122L, and 125. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology program.

### RTEC 121 Radiographic Anatomy and Positioning I (2)

#### RTEC 121L Radiographic Anatomy and Positioning I Laboratory (1)

Instruction in every phase of radiography in an integrated coverage of appendicular skeletal system, abdomen, thoracic viscera and body systems. Radiographic anatomy and positioning are discussed and applied in the energized laboratory. Corequisites: RTEC 114, 120, 122, 122L, and 125. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology program.

### RTEC 122 Principles of Radiographic Exposure (2)

#### RTEC 122L Principles of Radiographic Exposure Laboratory (1)

Fundamental factors which govern and influence the radiographic image including equipment, accessory devices, exposure mathematics, and processing. Technical and prime exposure factors are discussed and applied in the energized laboratory. Corequisites: RTEC 114, 120, 121, 121L, and 125. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology program.

### RTEC 124 Radiographic Clinical Experience II (4)

Continues clinical education and introduces additional concepts correlating skills with academic courses. Includes one hour a week of film critique provided by the clinical instructor. Corequisites: RTEC 131, 131L, 132, 132L, 135. Prerequisite: RTEC 114 or consent of the instructor.

### RTEC 125 Radiologic Science (2)

Basic physics, fundamentals of x-ray generating equipment, x-ray production and interaction, beam characteristics and units of radiation measurement. Corequisites: RTEC 114,

120, 121, 121L, 122, and 122L. Prerequisites: BIOL 209, 209L, acceptance into the Radiologic Technology program.

### RTEC 131 Radiographic Anatomy and Positioning II (2)

#### RTEC 131L Radiographic Anatomy and Positioning II Laboratory (1)

Continuation of RTEC 121 with instruction in every phase of radiography of the axial skeleton, digestive system, urinary system, cranium, spinal column and facial bones. Corequisites: RTEC 124, 132, 132L and 135. Prerequisites: RTEC 120, 121, 121L, 122, 122L, and 125.

### RTEC 132 Radiographic Equipment and Special Imaging (2)

#### RTEC 132L Radiographic Equipment and Special Imaging Lab (1)

Continuation of RTEC 122 including equipment utilized to produce diagnostic images, recording media and techniques, quality assurance and computer applications in diagnostic radiology. Advanced imaging modalities of computed tomography, MRI, cardiovascular imaging technology, ultrasound and mammography are also presented. Applied practice of quality assurance, technique charts and mammographic demonstrations are performed in the laboratory. Corequisites: RTEC 124, 131, 131L, and 135. Prerequisites: RTEC 120, 121, 121L, 122, 122L, and 125.

### RTEC 135 Radiation Biology and Protection (2)

Principles of radiation interaction in cells and the effect and factors affecting cell response to radiation, acute and chronic effects of radiation, dose equivalent limits, and regulatory involvement. Responsibility by the radiographer to patients, personnel, the public and self are also discussed. Corequisites: RTEC 124, 131, 131L, 132, 132L. Prerequisites: RTEC 120, 121, 121L, 122, 122L, 125.

### RTEC 214 Radiographic Clinical Experience III (8)

Continues clinical education and introduces additional concepts correlating skills with academic courses. Includes film critique provided by the clinical instructor. Prerequisite: completion of all 100 level radiologic technology courses or permission of the instructor.

### RTEC 224 Radiographic Clinical Experience IV (8)

Continues clinical education and introduces additional concepts correlating skills with academic courses. Corequisites: RTEC 251, 255. Prerequisite: RTEC 214 or consent of the instructor.

### RTEC 234 Radiographic Clinical Experience V (8)

Continues clinical education and introduces additional concepts correlating skills with academic courses. Corequisites: RTEC 261, 265. Prerequisites: RTEC 224, 251, 255 or consent of instructor.

### RTEC 251 Radiographic Pathology (3)

Radiographic and advanced modality equipment, radiographic anatomy and pathology involved in specialized and highly

technical procedures. Contrast media, pharmacology and venipuncture are also covered. Corequisites: RTEC 224, 255. Prerequisite: All RTEC 100 level courses.

**RTEC 255 Radiographic Assessment I (1)**

Radiographic film quality critique and patient care assessment. Utilizes previous knowledge of film quality factors and patient care techniques as well as an understanding of pathology demonstrated on radiographs. Corequisites: RTEC 224, 251. Prerequisite: all RTEC 100 level courses, RTEC 214 or consent of instructor.

**RTEC 261 Radiographic Review (3)**

Departmental administrations, radiologic records and job seeking skills are discussed. The major portion of this course is devoted to compiling a portfolio of radiographic fundamentals in all aspects of the program; and reviewing in preparation for the national registry examination. Corequisite: RTEC 234,265. Prerequisites: All RTEC 100 level courses and RTEC 224, 251 and 255.

**RTEC 265 Radiographic Assessment II (1)**

Continuation of RTEC 255. Radiographic film quality critique and patient care assessment. Corequisites: RTEC 234, 261. Prerequisites: RTEC 214, 224, 251, 255 or consent of instructor.

## **SOCIAL SCIENCE (SOCI)**

---

**SOCI 110 simThinking: Modeling the Social and Natural World (6)**

Students study the uses of modeling as a foundational part of all sciences. simThinking is organized around the course's guiding principle of using models to understand the fundamentals of complex adaptive systems in the social, natural, and physical world. Using the tools of agent-based modeling, students examine systems "from the bottom up" by identifying the component parts of a system and discovering the rules of interaction between component parts (agents) and their emergent properties. The class is interdisciplinary, team-taught, and technologically-enriched. Students learn academic content through a series of projects, and develop strong critical thinking and teamwork skills. (Fall/Spring)

**SOCI 121 Americorps Field Placement I (3)**

Exploration of the practice and theory of community service. Prerequisites: enrollment in a national Service Program, approval of AmeriCorps Directors. (Spring)

**SOCI 122 Americorps Field Placement II (3)**

In-depth analysis, strategic planning, implementation and evaluation of community projects. This class shall give the students an opportunity to examine real issues in the community and become a part of the problem-solving process. Prerequisite: SOCI 121. (Fall)

**SOCI 136 The African-American Experience (3)**  
An introduction to the experience of African-Americans from the perspective of the Social Science disciplines. (On demand)

**SOCI 296 Topics (1-3)**

**SOCI 310 Methods of Social Research (3)**  
Research methods and their application to the social sciences. Prerequisites: PSYC 150 or SOCO 260 and STAT 200. (Fall/Spring)

**SOCI 340 Methods of Teaching Social Studies: Secondary Schools (4)**

Examination and comparison of the social studies, exploring both new and traditional curricula, philosophies, and teaching methods. 75 hours of field work required. Prerequisites: upper division status and 21 semester hours of social sciences. (On demand)

**SOCI 351 History of Ideas: Ancient and Medieval Periods (3)**

The major ideas of man and society in ancient Greece and Rome with attention to social conditions influencing their development and transmission into the social thought of Medieval Europe. (On demand)

**SOCI 352 History of Ideas: Modern Period (3)**

The emergence of the Idea of Progress, a set of ideas which underlie the social sciences, including history writing. Critiques the effectiveness of these ideas for a social science capable of meeting the problems of modern society. Prerequisites: SOCI 351 or PHIL 353 or consent of instructor. (On demand)

**SOCI 395 Independent Study (1-3)**

**SOCI 396 Topics (1-3)**

**SOCI 495 Independent Study (1-3)**

**SOCI 496 Topics (1-3)**

**SOCI 497 Structured Research (3)**

Social or behavioral science research under the directed guidance of a faculty member. Designed for junior and senior level students. (On demand)

## **SOCIOLOGY (SOCO)**

---

**SOCO 144 Marriage and Families (3)**

Marriage and families in social, historic, institutional, theoretical, and gendered contexts. Includes family formation, family problems, and alternative intimate relationships. (Fall/Spring)

✓ **SOCO 260 General Sociology (3)**

An overview of sociological concepts, terminology, basic principles, and important theories; introduction to substantive areas of the field. (Fall/Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**SOCO 264 Social Problems (3)**  
Major contemporary social problems including crime, race relations, war, educational systems, unequal distribution of wealth, and political apathy. (Fall/Spring)

**SOCO 296 Topics (1-3)**

**SOCO 300 Political Sociology (3)**  
The interactions and interrelationships between social and political forces. Topics covered include state and society, the social bases of power, ideology, and the media. Prerequisite: SOCO 260, or POLS 101 or consent of instructor. (Spring)

**SOCO 301 Introduction to Human Services (3)**  
Exploration of human services agencies, programs, funding, philosophies, history, and career opportunities. Prerequisites: SOCO 260, 264 or consent of instructor. (Fall/Spring)

**SOCO 305 Environmental Sociology (3)**  
An overview of the interrelations among the physical environment, population, and technology; the origin and basis of environmental social movement organizations; the social construction of environmental issues. Prerequisites: SOCO 260 or consent of the instructor. (Alternate Fall)

**SOCO 310 Sociology of Religion (3)**  
Sociological aspects of religion, including the social function of religion, religious traditions in the global village, and the rise of new religious movements. Prerequisite: SOCO 260 or consent of instructor. (Fall)

**SOCO 312 Collective Behavior and Social Movements (3)**  
Collective behaviors, such as demonstrations, strikes, riots, political movements and revolutions, in both a historical and contemporary context. Prerequisite: SOCO 260 or consent of instructor. (Alternate Spring)

**SOCO 314 Population (3)**  
Basic concepts of population studies in international context. Demographic trends including fertility, mortality and migration, as well as the causes and consequences of those trends. Prerequisites: SOCO 260 or consent of instructor. (Alternate Spring)

**SOCO 316 Social Inequality (3)**  
Causes and effects of inequality, especially social class, with consideration of race and gender. Prerequisites: SOCO 260, or SOCO 264 or consent of instructor. (Alternate Fall)

**SOCO 320 Life Course Sociology (3)**  
Investigation of the social factors influencing human lives, emphasizing the connection between individual lives and social change. Prerequisites: SOCO 144 or SOCO 260 or consent of instructor. (Alternate Fall)

**SOCO 325 Racial and Ethnic Relations (3)**  
Sociological perspectives on racial and ethnic relations in the United States. Prerequisites: SOCO 260 or consent of instructor. (Alternate Fall)

**SOCO 330 Crime and Delinquency (3)**  
Crime, delinquency, and deviance in social and theoretical context. Prerequisite: SOCO 260 or SOCO 264 or consent of instructor. (Fall)

**SOCO 340 Sex and Gender (3)**  
Perspectives on the social organization of sex and gender. Prerequisites: SOCO 144 or SOCO 260; or consent of instructor. (Spring)

**SOCO 350 Sociology of Death and Dying (3)**  
A critical review of concepts and findings of social scientists and a semi-scientific review of literature dealing with death. Prerequisite: SOCO 260 or SOCO 264 or consent of instructor. (On demand)

**SOCO 360 Social Influences of Small Groups (3)**  
Small-group processes in schools, peer groups, industry, and other selected institutions; small groups as related to the larger social system; group structure, communications, and the dynamics of social interaction. (On demand)

**SOCO 395 Independent Study (1-3)**

**SOCO 396 Topics (1-3)**

**SOCO 400 Classical Social Theory (3)**  
The development of social theory from the Enlightenment through early twentieth century, with emphasis on Marx, Weber, and Durkheim. Prerequisite: SOCO 260 or consent of instructor. (Fall)

**SOCO 410 Contemporary Social Theory (3)**  
Twentieth century sociological theories and their historical links to classical thought. Prerequisite: SOCO 400. (Spring)

**SOCO 495 Independent Study (1-3)**

**SOCO 496 Topics (1-3)**

**SOCO 499 Internship (4)**

**SPEECH (SPCH)**

**SPCH 101 Interpersonal Communications (3)**  
Language, listening, response, defense of statement, and non-verbal communication between two or more people. (Fall/Spring)

**SPCH 102 Speechmaking (3)**  
The preparation, organization, and delivery of a speech. (Fall/Spring)

**SPCH 112 Voice and Diction (3)**  
The use of the speaking voice emphasizing voice placement, speech sounds, breath control, projection, and the phonetic alphabet. Recommended for theatre majors, teachers, pre-law, ministers and business majors. (Fall)

**SPCH 196 Topics (1-3)**

- SPCH 203 Persuasion** (3)  
Open discussions on the ethics, process, and application of everyday use of persuasion; how it applies to our advertisements, politics, and friendships; preparation for debate. Prerequisite: SPCH 102. (Fall)
- SPCH 241 Oral Interpretation** (3)  
The reading aloud of prose, poetry, and essays with the intention of conveying the author's ideas to a listening audience. (On demand)
- SPCH 296 Topics** (1-3)
- SPCH 303 Nonverbal Communication** (3)  
The opportunity to observe, record and interpret the nonverbal dimensions of communication behavior and the opportunity to enhance awareness and skill in nonverbal communication behavior in mass media, law, theatre, group dynamics, etc. (Alternate Fall)
- SPCH 304 Communication and Conflict** (3)  
The nature of conflict, conflict structure, conflict styles, and the use of "power" in conflicts. Application of theories to analyze and set goals to plan strategies and tactics. Study of intervention principles and practices. Prerequisites: upper division standing. (Alternate Spring)
- SPCH 305 Communication: Culture, Diversity and Gender** (3)  
Research and practical application to facilitate constructive relationships with individuals from other countries, with individuals from sub-cultures within our culture, and with individuals of the opposite sex. Prerequisite: SPCH 101. (Alternate Fall)
- SPCH 306 Communication and Leadership** (3)  
Study of communication styles of great leaders from every field of endeavor to determine the sources of their influence over the behaviors, thoughts, and feelings of their followers. Included will be study of the historical environments that gave rise to each leader's style. Prerequisite: SPCH 101. (Alternate Spring)
- SPCH 308 Argumentation & Debate** (3)  
Research and development of various types of debate such as student congress, mock trial, value debate, etc., using national and international topics of current interest. Prerequisites: SPCH 102, 203 or consent of instructor. (Spring)
- SPCH 395 Independent Study** (1-3)
- SPCH 396 Topics** (1-3)
- SPCH 495 Independent Study** (1-3)
- SPCH 496 Topics** (1-3)

## STATISTICS (STAT)

---

Graphing calculator is recommended or required for several statistics classes. See department for recommended models.

In order to take any of the following statistics courses, each listed prerequisite (or an equivalent course) must be completed with a grade of "C" or better. The instructor may waive the prerequisite.

- STAT 200 Probability and Statistics** (3)  
Descriptive statistical methods, elementary probability, sample distribution, binomial, normal, t, and F distributions, parameter estimation, one and two sample tests of hypothesis, simple correlation and regression analysis, one-way analysis of variance, nonparametric inference, time permitting. Introduction to statistical software. Prerequisites: MATH 110 or 113 or consent of instructor. (Summer/Fall/Spring)
- STAT 311 Statistical Methods** (3)  
Power of statistical tests, categorical data techniques, inference about population means and variances, nonparametric methods, simple and multiple linear regression and correlation, analysis of variance, multiple comparisons, introduction to some experimental designs. Use of statistical software. Prerequisites: STAT 200. (Fall)
- STAT 313 Sampling Techniques** (3)  
Methodology of simple random sampling, stratified, systematic cluster, and two-stage sampling is developed. Estimation of sample size determination, and minimized costs of sampling are discussed. Use of resampling statistical software. Prerequisite: STAT 200. (Spring)
- STAT 350 Mathematical Statistics** (3)  
The mathematical development of discrete and continuous random variables including the underlying distributions, conditions, and marginal probability laws, sampling distributions and an introduction to the theory of estimations and hypothesis testing. Prerequisites: STAT 311, MATH 253, or consent of instructor. (Spring)
- STAT 395 Independent Study** (1-3)
- STAT 396 Topics** (1-3)
- STAT 412 Correlation and Regression** (3)  
Graphical, numerical, and theoretical least-squares analysis for simple and multiple regression and correlation, including inference methods, diagnostics and remedial measures, simultaneous inference methods, the matrix approach to regression and correlation analysis, stepwise regression procedures. Use of statistical software. Prerequisites: STAT 350 and familiarity with matrix algebra. (Fall)
- STAT 425 Design and Analysis of Experiments** (3)  
Design and analysis of single and multiple factor experiments, fixed, mixed and random effects designs including multiple comparison procedures, transformations, fixed,

mixed and random effects designs, completely randomized designs, randomized block designs, Latin square designs, and nested designs. Prerequisite: STAT 412. (Alternate Spring)

**STAT 494 Seminar (1)**  
Discussions of specialized topics by students, faculty, or visiting professors. One-hour meeting per week. (On demand)

**STAT 495 Independent Study (1-3)**

**STAT 496 Topics (1-3)**

## SUPPLEMENTAL COURSES (SUPP)

**SUPP 090 College Preparatory Reading (3)**  
Introduction to strategies necessary for college level content reading. Includes how to read textbooks more effectively, locate main ideas and supporting details, develop literal and critical comprehension, and improve vocabulary development. Emphasizes applying these strategies to content area courses. (Fall/Spring)

**SUPP 101 Introduction to Higher Education (1-3)**  
Assistance and guidance for students in maximizing their potential for success in college by promoting their academic growth. Emphasizes test taking, reading techniques, note taking, and memory as well as the following: critical thinking, stress management, utilization of campus resources, goal setting, relationship of academic planning to career goals, career exploration and other topics. (Fall/Spring/Summer)

**SUPP 201 Theory and Practice of College Peer Tutoring (3)**  
General and specific training for college level peer tutoring. Readings, discussion, experiential exercises expose students to contemporary learning theories, learning enhancement techniques, and effective applications to group and individual learning situations. Supervised tutoring practicum applies theories and concepts to actual tutoring sessions. Prerequisite: permission of instructor; 2.5 GPA; recommendation by instructor in subject area. (Fall/Spring)

## TECHNOLOGY INTEGRATION (TECI)

**TECI 117 DC Passive Circuits (3)**

**TECI 117L DC Passive Circuits Laboratory (1)**  
DC circuits including resistors, capacitors, inductors, applications of Ohm's and Kirchhoff's laws, and use of standard test equipment. Three one-hour lectures and one one-and-one-half hour laboratory per week. (Summer/Fall/Spring)

**TECI 118 AC Passive Circuits (3)**

**TECI 118L AC Passive Circuits Laboratory (1)**  
Analysis of AC circuits including resistors, capacitors, inductors, and use of standard test equipment. Three one-hour lec-

tures and one one-and-one-half hour laboratory per week. (Summer/Fall/Spring)

**TECI 121 Electronic Design/Layout (2)**  
Fundamentals of CAD design for electronic projects. Emphasis on the creation of electronic schematics and necessary artwork to fabricate a printed circuit board. Prerequisites: Student must be in his/her 4th semester and/or have instructor approval. (Fall)

**TECI 132 Introduction to IT Hardware and System Software (3)**

**TECI 132L Introduction to IT Hardware and System Software Laboratory (1)**  
Basic hardware and software study of stand-alone or local/wide-area computers. Hands on experience using 5x or above architecture. (Fall)

**TECI 164 Electronic Circuits I (3)**

**TECI 164L Electronic Circuits I Laboratory (1)**  
Analysis of solid state diodes and bipolar transistor amplifier circuits. Prerequisites: ELCT 118 or consent of instructor. Three one hour lectures and one two-hour laboratory per week. (Summer/Fall/Spring)

**TECI 165 Applied Digital Circuits (2)**

**TECI 165L Applied Digital Circuits Laboratory (2)**  
Logic gates, Boolean algebra, flip-flops, registers, memory, karnaugh mapping, machine programming, and construction of a microcomputer using TTL devices. Prerequisites: ELCT 164, 164L. Two one-hour lectures and two two-hour laboratories per week. (Summer/Fall/Spring)

**TECI 170 Introduction to Communications (3)**

Overview of communication systems that include both central office based and premise based platforms. The switching and service components of RBOC and inter-exchange providers will be examined and discussed. Characteristics, advantages, and disadvantages of the various systems will be compared and contrasted. Architecture and design of switching infrastructures and components will also be covered. (Fall)

**TECI 180 Cisco Networking I (3)**

The first of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: OSI model, internetworking devices, IP addressing, LAN media & topologies, structured cabling, electronics. (Fall)

**TECI 185 Cisco Networking II (4)**

The second of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: Safety; Networking; Network terminology and protocols; Network standards; LANs, MANs, SANs, WANS; OSI model; Ethernet; Token ring; FDDI; TCP/IP addressing protocol; Dynamic routing; the Network Administrator's role and function. Prerequisite: TECI 180. (Spring)

**TECI 220 Regulations and Standards (3)**

Overview of the regulations and standards that pertain to technicians in the communications industry. Regulated as well as unregulated business operations will be discussed. (Fall/Spring)

**TECI 230 Cisco Networking III (4)**

The third of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: LAN switching; VLANs; LAN design; IGRP; Access lists; IPX/SPX; with concepts applied through design of a Threaded Case Study (TCS). Prerequisites: TECI 180 and 185. (Fall)

**TECI 231 Electronic Circuits II (3)****TECI 231L Electronic Circuits II Laboratory (1)**

Differential and operational amplifier circuitry, feedback configurations, op-amps errors, compensations, and applications. Prerequisite: consent of instructor. Three one-hour lectures and one two hour laboratory per week. (Summer/Fall/Spring)

**TECI 235 Cisco Networking IV (4)**

The fourth of four semester courses in Cisco's Networking Academy curriculum. Concepts covered are: WANs, SANs design; PPP; ISDN; Frame relay; Master documentation skills; with concepts applied through design of a Threaded Case Study (TCS). Prerequisites: TECI 180, 185, and 230. (Spring)

**TECI 240 Telecommunications Engineering (3)**

Covers the components of engineering the telephone outside plant, fundamentals of transmission, resistance design, and distribution cable design in serving a customer area. (Fall)

**TECI 256 Electronic Communication (3)****TECI 256L Electronic Communication Laboratory (1)**

Introduction to the field of communications. Covers am, fm, stereo, television, antennas, digital communication, radar, lasers, and fiber optics. Three one-hour lectures and one two-hour laboratory per week. Prerequisite: consent of instructor. (Summer/Fall/Spring)

**TECI 260 Information Technology Hardware and System Software (3)****TECI 260L Information Technology Hardware and System Software Laboratory (2)**

Use of an internal systems approach to building and maintaining stand-alone or local/wide area computers utilized in networking. Hands on experience using 5x or above architecture. Electronics Technology Majors Only: Co-requisite TECI 260L, prerequisite TECI 132/132L. (Fall/Spring)

**TECI 265 Advanced IT Hardware and System Software (2)****TECI 265L Advanced IT Hardware and System Software Laboratory (2)**

An internal systems approach to building and maintaining computers that can be used as stand-alone or on a local/wide area network. An advanced study of networking and software projects. The computers are 5x and above architecture.

Electronics Technology Majors Only: Co-requisite 265L, prerequisites TECI 260, 260L. (Fall/Spring)

**TECI 292 Capstone in Technical Engineering Planning and Economics (6)**

Knowledge to articulate the tactical planning functions performed within capacity provisioning. Access and apply the various tactical planning tools and data elements to supporting documentation. Economic principles in costing, value, capital investment, profitability and inventory. (Spring)

## **TELECOMMUNICATIONS - COMMUNICATIONS TECHNOLOGY (TCOM)**

---

**TCOM 175 Telecommunications Constructions and OSHA Safety (3)**

Safety awareness in the communications industry, including: personal, building, constructing, vehicular safety and OSHA regulations. (Fall/Spring)

**TCOM 255 Telecommunications Installation (3)**

Basic phone installation from pedestal to customer premise equipment (CPE) and the necessary troubleshooting and testing skills to maintain the phone system integrity. (Fall/Spring)

**TCOM 265 Telecommunications Cable Splicing and Repair (3)**

Print reading, manhole testing and safety, cable and fault locating, and splicing. (Fall/Spring)

**TCOM 299 Internship (3)**

Related work experience in the communications industry that meets instructor's approval. (Fall/Spring)

## **THEATRE (THEA)**

---

**THEA 114 Summer Theatre (3)**

Professional summer theatre experience. The student is expected to participate in all phases of the theatre operation including acting, technical work, directing, box office management, etc. It is advisable for a student enrolled in summer theatre not to enroll in any other class. Five plays are presented in a seven-week period.

**THEA 117, 118\* Play Production (1,1)**

A practical course in stagecraft concerned with the production of plays. The student works in all phases of production. Students will work three hours per week unless other arrangements are made with the instructor. (Fall/Spring)

**THEA 119, 120 Technical Performance (1,1)**

Direct participation in the technical aspects of various productions. Grade will depend upon the preparatory work involved and upon the final technical production. Students

must work a minimum of two productions in order to receive credit. (Fall/Spring)

**THEA 128, 129 Theatre Forums (1,1)**  
Specialized workshops in various aspects of theatre made possible by visiting artists and/or lecturers or by attending seminars or workshops. Papers and discussions are used for evaluation. (On demand)

**THEA 130 Script Analysis (3)**  
Introduction to practical analysis for enhancing the move from script to performance. Familiarizes students with script analysis techniques useful to the collaborative theatrical team. (Spring)

**THEA 141 Theatre Appreciation (3)**  
Examination of basic presentation techniques of theatre, motion picture, and television. (Fall/Spring)

**THEA 142 Make-Up (3)**  
All types of make-up for the stage. Students examine straight and character make-up techniques and learn the use of crepe hair, prosthetics, and other material. (Fall)

**THEA 143 Costuming (3)**  
Costume design and the history of costume. (Alternate Spring)

✓ **THEA 145 Introduction to Dramatic Literature (3)**  
Dramatic literature from classical Greeks to modern dramatists. (Spring)

**THEA 147 Drama Performance (Fall) (1-2)**

**THEA 148 Drama Performance (Spring) (1-2)**  
Requires a student to appear in a major production on campus. The grade will depend upon the preparatory work on the play's character and upon the final performance. Prerequisite: consent of instructor (Fall/Spring)

**THEA 150 Fundamentals of Acting (3)**  
This course will introduce non-theatre majors to the basic components of the acting process, including scene work, improvisation, and audition techniques. (Fall/Spring)

**THEA 151 Acting I: Beginning Acting (3)**  
Fundamentals of acting through the use of improvisation and study of scenes. Students perform in solo, duo and/or group scenes. (Laboratory includes participation in student-directed plays.) Prerequisite: Theatre Arts major or minor in good standing. (Fall)

**THEA 152 Acting II: Stage Movement (3)**  
Basic techniques of gesture, movement styles and combat. Developing an awareness of the use of the body as a means of expression is emphasized. Prerequisites: THEA 151 or consent of the Instructor. (Spring)

**THEA 196 Topics (1-3)**

**THEA 213 Creative Play Activities-Drama (2)**  
Creative dramatics in a learning situation. Includes subject matter of interest to anyone in early childhood education, general education, social work, religious education, and/or recreation. (On demand)

**THEA 214 Summer Theatre (3)**  
See THEA 114.

**THEA 217, 218\* Play Production (1,1)**  
See THEA 117, 118. Prerequisites: courses must be taken in sequence or by consent of the instructor. (Fall/Spring)

**THEA 219, 220 Technical Performance (1,1)**  
See THEA 119, 120. (Fall/Spring)

**THEA 228, 229 Theatre Forums (1,1)**  
See THEA 128, 129. (On demand)

**THEA 243 Theatre Practice: Scene Construction, Painting, and Design (3)**  
Techniques of construction; painting of scenery; properties for the theatre and basic principles of scene design. (Fall)

**THEA 244 Theatre Practice: Beginning Lighting (3)**  
A basic course in the use of light and instrumentation in various stage productions, including plays, dance concerts, and music programs. (Spring)

**THEA 247 Drama Performance (Fall) (1-2)**

**THEA 248 Drama Performance (Spring) (1-2)**  
See THEA 147, 148. Prerequisite: consent of instructor. (Fall/Spring)

**THEA 251 Acting III: The Meisner Approach (3)**  
An examination of the Meisner Approach, which is the "industry standard" technique that actors use to explore the modern Naturalistic/Realistic genre of plays and screenplays. Prerequisites: THEA 151, 152. (Fall)

**THEA 260 Costume Construction I (3)**  
Introduction to sewing skills, commercial patterns, distressing garments, and creative problem solving. Prerequisite: THEA 143. (Alternate Spring)

**THEA 296 Topics (1-3)**

**THEA 314 Summer Theatre (3)**  
See THEA 114.

**THEA 317, 318\* Play Production (1,1)**  
See THEA 117, 118. Prerequisites: courses must be taken in sequence or by consent of the instructor. (Fall/Spring)

**THEA 319, 320 Technical Performance (1,1)**  
See THEA 119, 120. (Fall/Spring.)

**THEA 322 Stage Management (3)**  
Theory and principles of human resources management, theatre technical production, and actual stage management situations. Prerequisites: THEA 151, THEA 243, THEA 244, or consent of instructor. (Alternate Spring)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.



- THEA 328, 329 Theatre Forums (1,1)**  
See THEA 128, 129. (On demand)
- THEA 331 Theatre History I: 400 B.C. to 1642 (3)**  
History of theatre as an institution and its relationship to the other arts and to the social and economic environment, from 400 B.C. to 1642 A.D. (Alternate Fall)
- THEA 332 Theatre History II: From 1642 to the Present (3)**  
Major world theatre events from 1642 to the present day. (Alternate Spring)
- THEA 341 Musical Theatre History and Literature (3)**  
In-depth study of the literature and styles of the master composers of music theatre from its beginnings through the present day. Course work is designed for the Musical Theatre major, utilizing lecture and listening lab format and a research paper on a subject of the student's choice. (Alternate Spring)
- THEA 343 Scene Design (3)**  
Experience in the designing of scenery and props for various types of productions with emphasis on research, acquisition, drafting, perspective, and rendering techniques. Prerequisite: THEA 243 or consent of instructor. (Spring)
- THEA 344 Advanced Stage Lighting (3)**  
Advanced training in the design and execution of lighting for the stage. Prerequisite: THEA 244 or consent of instructor. (Fall)
- THEA 345 World Drama (3)**  
Students will examine the richness and diversity of contemporary world theatre and drama from a global context. (On demand)
- THEA 347 Drama Performance (Fall) (1-2)**  
**THEA 348 Drama Performance (Spring) (1-2)**  
See THEA 147, 148. Prerequisite: consent of instructor. (Fall/Spring)
- THEA 352 Acting V: Styles in Acting (3)**  
Various styles of acting used for the Classical, Elizabethan, Romantic, 19th Century Melodrama and Realistic periods. Prerequisites: THEA 151 and 152 or consent of instructor. (Alternate Fall)
- THEA 360 Costume Construction II (3)**  
An introduction to developing period patterning, interpreting a rendering into finished garment, investigating ethnic styles and refining creative problem-solving skills. Prerequisite: THEA 260. (Alternate Spring)
- THEA 376 World's Greatest Films (3)**  
Aesthetics and elements that qualify film as an important art form as seen through the major contributors from three important culturally diverse areas of the world: Europe, Asia and America. (Spring)
- THEA 380 Playwriting I (3)**  
Fundamentals of playwriting through a systematic, textual approach, the proper format of scriptwriting, and the writing of short scripts based on common thematic elements. (Alternate Spring)
- THEA 395 Independent Study (1-3)**
- THEA 396 Topics (1-3)**
- THEA 401 Performing Arts Management (3)**  
An introduction to the administrative and business aspects of the performing arts. Prerequisites: junior or senior standing or consent of instructor. (Fall)
- THEA 403 Methods of Teaching Drama and Speech (3)**  
Teaching communication, speechmaking, debate and discussion, creative drama, oral interpretation, play selection and direction in the public schools. Prerequisites: junior standing in English education or speech/theatre programs. (Alternate Fall)
- THEA 411 American Drama (3)**  
The study of American drama and theatre trends from the first American playwright to the current trends of today. (Alternate Fall)
- THEA 412 Contemporary Drama (3)**  
A study of contemporary drama from the advent of Realism to the present day. (Alternate Fall)
- THEA 414 Summer Theatre (3)**  
See THEA 114.
- THEA 417, 418\* Play Production (1,1)**  
See THEA 117, 118. Prerequisites: courses must be taken in sequence or by consent of the instructor. (Fall/Spring)
- THEA 419, 420 Technical Performance (1,1)**  
See THEA 119, 120. (Fall/Spring)
- THEA 428, 429 Theatre Forums (1,1)**  
See THEA 128, 129. (On demand)
- THEA 445, 446 Senior Tech/Design Capstone (3,3)**  
Work experience in various aspects of theatre such as scene/prop design and/or construction, lighting/sound design, sound, costume/makeup design or projects involving acting/directing, music theatre, theatre management, playwriting or other projects deemed worthwhile and vital by the instructor. Prerequisites: senior standing or consent of instructor. (Fall/Spring)
- THEA 447 Drama Performance (Fall) (1-2)**  
**THEA 448 Drama Performance (Spring) (1-2)**  
See THEA 147, 148. Prerequisite: consent of instructor. (Fall/Spring)
- THEA 451 Directing I (3)**  
The fundamentals of directing applied to the direction of a scene or short play for public viewing. Prerequisites: THEA

151, 152 and at least one upper division acting course or consent of instructor. (Fall)

**THEA 452 Directing II: Acting/Directing Capstone (3)**  
Advanced directing techniques and production of a one-act play for public viewing. Prerequisite: THEA 451 or consent of instructor. (Spring)

**THEA 456 Acting VI: Acting for the Camera (3)**  
The transition from stage acting techniques to camera acting techniques. Students will have the opportunity to work on camera with simplified sets and properties. Prerequisites: THEA 151 and 152 or consent of instructor. (Alternate Spring)

**THEA 457 Acting VII: Auditions (3)**  
Writing of résumés, how to look for an acting job, and the preparation of materials to be used in auditions. Students will be required to prepare for auditioning on a regional level. Prerequisites: THEA 151 and 152 or consent of instructor. (On demand)

**THEA 458 Acting VIII: Elizabethan Acting Techniques (3)**  
An in-depth exploration of acting approaches to the verse drama of Shakespeare. Prerequisites: THEA 151, 152. (Spring)

**THEA 472 Performance Seminar (3)**  
Exploration of theories of audition, rehearsal and performance techniques for upper division performance majors. (Fall)

**THEA 495 Independent Study (1-3)**

**THEA 496 Topics (1-3)**

**THEA 499 Internship (3,6,9)**  
Work in acting/directing, design/tech, music theatre and theatre management, or other situations that meet the instructor's approval. Prerequisites: senior standing and consent of the instructors. (On demand)

\*At least one course at each level must be taken in sequence.

## **TRANSPORTATION SERVICES CLUSTER – AUTOMOTIVE (TSTA)**

**TSTA 245 Manual Drive Trains (4)**  
Standard repair practices for drive train components to include: clutch, transmission, transaxle, drive axle, driveline, c-v and R & R procedures. Prerequisites: TSTC 100, 101, 140. (On demand)

**TSTA 247 Automatic Drive Train Service (4)**  
Standard repair practices for automatic drive trains to include: diagnosis, testing, R & R, and servicing of transaxles/rear wheel drive transmissions. Prerequisites: TSTC 100, 101, 140. (On demand)

**TSTA 265 Engine Control Services (2)**  
Repair and diagnosis of engine control systems with an emphasis on scan tool diagnosis and live hands on repair of systems. Prerequisites: TSTC 100, 101, 160. (On demand)

**TSTA 267 Body and Chassis Controls (2)**  
Theory, repair, and diagnosis of body accessories including air bags, electronic monitors, power seats, windows and wipers. Prerequisites: TSTC 100, 101, 160. (On demand)

**TSTA 275 Alignment and Suspension Service (3)**  
Repair of suspension systems to include: alignment (2 and 4 wheels), R & R component parts, and pre-alignment inspections. Prerequisites: TSTC 100, 101, 170. (On demand)

**TSTA 287 Engine Performance and Emissions (2)**  
Diagnosis and repair of engine performance and emissions-related failures. Emphasis on strategy based diagnostics through the use of exhaust gas analysis. Prerequisites: TSTC 160, TSTC 180, TSTA 265. (Spring)

## **TRANSPORTATION SERVICES CLUSTER – CORE (TSTC)**

**TSTC 100 Introduction to Transportation Services (1)**  
Introduction to procedures, tool usage, basic shop safety, and equipment. (On demand)

**TSTC 101 Vehicle Service and Inspection (2)**  
Introduction to vehicle systems, maintenance, and inspection. Service of the vehicle stems with emphasis on inspection and observation. (On demand)

**TSTC 110 Engine Fundamentals (1)**  
Introduction to Internal Combustion Engine theory, systems diagnosis, fundamentals and evaluation. (On demand)

**TSTC 130 Electrical Fundamentals (2)**  
Introduction to electrical theory, circuits, components, testing and use of test equipment. (On demand)

**TSTC 140 Drive Train Fundamentals (1)**  
Introduction to drive train components, diagnosis, light repair, and adjustment. Prerequisites: TSTC 100, 101. (On demand)

**TSTC 160 Electronic Control Systems (2)**  
Study of electronic control systems applied to today's modern vehicles. Emphasis on sensors, actuators, and diagnostic techniques. (On demand)

**TSTC 170 Chassis Fundamentals (1)**  
Theory and operation of front and rear suspension systems, including steering front end geometry and component nomenclature. (On demand)

**TSTC 171 Brake System Fundamentals (1)**  
Theory, components, general repair practices and diagnosis of current brake systems. Prerequisites: TSTC 100, 101. (On demand)

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**TSTC 180 Fuel System Fundamentals (1)**  
Theory of gas and diesel injection, combustion process, delivery systems and general service techniques. (On demand)

**TSTC 190 Climate Control Fundamentals (1)**  
Theory of operation, nomenclature, identification, safety and environmental impact factors of air conditioning. Also covers heating and ventilation systems. Prerequisites: TSTC 100, 101. (On demand)

## **TRANSPORTATION SERVICES CLUSTER – DIESEL (TSTD)**

---

**TSTD 177 Air Systems Repair and Service (2)**  
This course studies the air systems on the heavy duty truck. the brakes, transmission shift, seats, and rear axle shift will be covered, to include, service and repair of components and systems. Repair of foundation brakes will also be included. Co-requisites: UTEC 150. (On demand)

**TSTD 215 Diesel Engine Reconditioning (5)**  
Industry standard rebuild practices for diesel engines. R & R of engine, complete disassembly, assembly and running of engine is covered. Tune-up and fuel system adjustment are covered. Prerequisites: TSTC 100, 101, 110 and TSTG 115. (On demand)

**TSTD 265 Diesel Engine Controls (1)**  
Repair and diagnosis of engine control systems with an emphasis on scan tool diagnosis and live hands-on repair of systems. Prerequisites: TSTC 100, 101, 160. (On demand)

**TSTD 275 Heavy Duty Suspension (2)**  
Types of on-road suspensions, tires, repair of components, diagnosis, measurements, and adjustments to front and rear suspensions. Prerequisites: TSTC 100, 101, 170. (On demand)

**TSTD 285 Diesel Fuel Injection (4)**  
Theory, diagnosis, and repair of diesel fuel injection systems. Emphasis on the adjustment and repair of injectors, filters, governors, blowers and turbos. Electronic systems, pump timing and pump replacement will also be covered. Prerequisites: TSTC 100, 101, 180. (On demand)

## **TRANSPORTATION SERVICES CLUSTER – GENERAL (TSTG)**

---

**TSTG 115 Gas Engine Reconditioning (4)**  
Industry standard rebuild practices for gas engines. R & R of engine, complete disassembly, assembly and running of engine is covered. Prerequisites: TSTC 100, 101, 110. (On demand)

**TSTG 135 Electrical Component Repair (2)**  
Electrical component repair to include: alternators, starters, wiring, and other electrical components. Prerequisites: TSTC 100, 101, 130. (On demand)

**TSTG 140 Job Shop (4)**  
Designed to obtain a working knowledge of the industry job standards, through use of lab work projects performed in house, when internships or co-op cannot be found. Prerequisites: TSTC core courses and second year status.

**TSTG 170 Practical Application (4)**  
Designed to gain a working knowledge of a particular field of study through co-op, internships, work experience or related lab work in industry. Prerequisites: TSTC core courses and second year status.

**TSTG 175 Hydraulic Brake Service (2)**  
Repair of brake systems to include: shoes, pads, cylinder reconditioning, machining rotors and drums, diagnosis, bleeding, R & R components, parking brakes and anti-lock systems. Prerequisites: TSTC 100, 101, 171. (On demand)

**TSTG 195 Climate Control Service (2)**  
Repair, diagnosis, R & R of components, charging, recycling and testing of heating and air conditioning systems of over the road vehicles. Prerequisites: TSTC 100, 101, 130, 190. (On demand)

**TSTG 240 Advanced Job Shop (4)**  
Application of workplace skills in a controlled shop environment, through the use of real-life lab work projects, performed in house, when internships or co-op opportunities are not available. Prerequisite: TSTG 140. (Fall/Spring on demand)

**TSTG 270 Advanced Practical Applications (4)**  
Designed to increase student competency through the use of internships or co-op training and real-life shop experiences in their chosen area specialty. Prerequisite: TSTG 170. (Fall/Spring on demand)

**TSTG 296 Topics (1-2)**

## **TRAVEL, TOURISM AND RECREATION MANAGEMENT (TRAV)**

---

**TRAV 101 Travel Industry I (3)**  
Introduction to tourism and its relationship to the business world, an overview of all sectors of business and the components of the travel, tourism, and hospitality industry. Travel methods, destination resorts, and other businesses which serve the traveler are evaluated. A requirement for all Travel, Tourism, and Commercial Recreation Management students. (Fall)

**TRAV 102 Travel Industry II (3)**  
Evaluation of job opportunities in the travel, recreation, and hospitality fields. Travel trends, feasibility studies, and marketing techniques are analyzed. Students are provided an opportunity to make preparations and acquire skill instructions for work in the student's career objective. Field trips and visiting lecturers are included. Prerequisite: TRAV 101 or consent of instructor. (Spring)

**TRAV 103 Travel and Tourism Marketing Techniques (3)**  
Interpretation of marketing problems, strategies, and techniques of industries engaged in serving the traveler, methods of identifying potential markets, preferences, and likely responses to promotional programs of private and governmental travel entities. Required of all Travel, Tourism, and Commercial Recreation Management students. MARK 231 recommended for baccalaureate students. Prerequisite: TRAV 101 or consent of instructor. (Spring)

**TRAV 199 Employment Concepts (1)**  
Introduction of the concepts of employment in conjunction with the internship experience. It will provide students with an opportunity to share their concerns with the instructor and other students, allow employers to discuss the internship with students and assist the student in developing his or her career goals. The student will enroll in this course the spring semester immediately preceding the summer they intend to do their TRAV 299 Internship. Prerequisites: TRAV 101. (Spring)

**TRAV 201 Management in the Travel Industry I (3)**  
An opportunity to explore operating techniques and problems of the major industries involved in tourism, travel, and hospitality through the eyes of the operating manager. Specific skills used within various industries are developed. Prerequisite: TRAV 102 or consent of instructor. (Spring)

**TRAV 211 Travel Destinations (3)**  
For the individual who plans to work, study, or travel internationally including the professional who is, or plans to be, part of the travel industry. Life styles and current local aspects in foreign destinations are considered and guest lecturers are included. Open to all students but strongly recommended for Travel, Tourism, and Commercial Recreation Management students. (Spring/on demand)

**TRAV 215 Computerized Reservations (3)**  
An introductory course providing an overview of operation of a computerized reservations system. Prerequisites: TRAV 101 and 102. (Spring)

**TRAV 217 Hotel Operations (3)**  
Introductory course providing an overview of the operation of a hotel front office. This will include the use of the personal computer and state-of-the-art software for reservations, check-in, check-out and creating the daily report. Prerequisite: TRAV 101. (Fall)

**TRAV 295 Independent Study (1,2)**

**TRAV 296 Topics (1-3)**

**TRAV 299 Internship (12)**  
Classroom studies combined with salaried work in an experience which relates to the student's career goal. Only for, and required of, Travel, Tourism, and Commercial Recreation Management students. Credit not available through competency or challenge. Prerequisite: TRAV 102, GPA of 2.00 or higher, or consent of instructor. (Summer)

**TRAV 310 Travel & Tourism Marketing Techniques (3)**  
Interpretation of marketing problems, strategies, and techniques of industries engaged in serving the traveler. Study will include advanced methods of identifying potential markets, preferences and likely responses to promotional programs of private and public travel entities. Required of all TRAV majors. Prerequisites: TRAV 101, MARK 231 or consent of instructor. (Spring)

**TRAV 350 Private and Commercial Recreation Systems (3)**  
Profit-based recreation industry, including managing the recreation enterprise, economic feasibility studies, small business entrepreneurship, market characteristics, professional opportunities, and trade association research and publications. Prerequisites: TRAV 101, MANG 201. (Fall)

**TRAV 351 Community Tourism Systems (3)**  
Community as a tourist destination area with concentration on identification of linkages between tourism industries and local economies, and the process of developing and managing park and recreation resources to serve the tourist. Prerequisites: TRAV 101, TRAV 102, MANG 201. (Spring)

**TRAV 352 Public Recreation Systems (3)**  
National and state outdoor recreation resource management systems including a variety of administrative tools applicable to operation and maintenance as well as comprehensive discussion of legislation, land use policy, forest recreation planning, and governmental designation programs. Prerequisites: TRAV 101, TRAV 102, MANG 201. (Fall)

## UTEC

---

**UTEC 107 Mathematics for Technology (4)**  
Designed to provide students with a practical application to mathematics. Topics include common fractions and decimals, fundamentals of algebra, plane geometry, and introduction to trigonometric functions. (Hand held calculator required). (On demand)

**UTEC 110 Applied Physics (3)**  
Instruction and application of physics in relation to technical education. One hour lecture and laboratory objectives. (Fall/Spring)

**UTEC 120 Industrial Safety Practices (3)**  
Overview of current OSHA and EPA general industry regulations with an emphasis on hazardous materials, right-to-know, record keeping, and worker role in safety.

✓ This course is approved by the Colorado Commission on Higher Education for statewide guaranteed transfer.

**UTEC 150 Fluid Power** (3)  
Principles of hydraulics and pneumatic system including the construction, application, repair, maintenance and troubleshooting of components and systems. (Fall/Spring)

**UTEC 220 Industry Employment Practices** (3)  
Employment skills encompassing leadership, goal setting, personal traits, conflict resolution, quality, time management, life-long learning, written and oral communication, and customer relations. (Spring)

**UTEC 251 Personal & Professional Leadership Development** (2)  
Personal and professional leadership skills used to aid in the transition from worker, to a supervisory position.(Fall/Spring)

## **WELDING (WELD)**

---

**WELD 110 SMAW I** (1)  
**WELD 110L SMAW I Laboratory** (5)  
Safe use of equipment in shop practice; covers shielded metal arc welding mild steel in all positions. One hour lecture, plus laboratory objectives. (On demand)

**WELD 115 Welding and Structural Theory** (4)  
Classroom instruction in the core and use of welding equipment, selection of the proper rods and processes, and safety as it applies to welding and welding equipment. Four hours per week. (On demand)

**WELD 117 OFW and C I** (1)  
**WELD 117L OFW and C I Laboratory** (1)  
Shop practice and skill development in safe use of Oxy-Fuel Welding/Cutting equipment. Basic Oxy-Fuel welding on mild steel in flat and vertical positions is covered with some emphasis on oxy-fuel cutting of various thicknesses of mild steel plate. One hour lecture, one and one-half hours laboratory per week. (On demand)

**WELD 118 OFW and C II** (1)  
**WELD 118L OFW and C II Laboratory** (1)  
Continuation of WELD 117 with increased emphasis on shop practice in safe use of Oxy-Fuel Welding/Cutting equipment. Oxy-fuel welding and brazing, both ferrous and non-ferrous, on both pipe and plate in all practical thicknesses. One hour lecture, one and one-half hours laboratory per week. Prerequisites: WELD 117 or equivalent and consent of instructor. (On demand)

**WELD 120 SMAW II** (1)  
**WELD 120L SMAW II Laboratory** (5)  
Pipe welding in all positions utilizing mild steel and other alloys as necessary. One hour lecture plus laboratory objectives. Prerequisite: WELD 110 or consent of instructor. (On demand)

**WELD 133 Fabrication Layout** (3)  
Basic layout techniques from shop drawings to fabrication of sheet metal, plate, structural shapes, and pipe. Six hours per week; seven and one-half weeks. (Spring)

**WELD 140 Job Shop** (3)  
Development of written process sheets and prints, estimation of manufacturing time, completion of project to specifications including performance of final inspection. Utilization of all manufacturing processes required. Prerequisites: consent of instructor. Practical Applications may be substituted with consent of instructor. (On demand)

**WELD 151 Industrial Welding** (1)  
**WELD 151L Industrial Welding Laboratory** (2)  
Introductory level mild steel shielded metal arc welding and oxy/fuel processes. Includes safety, equipment use, SMAW, GMAW, oxyacetylene welding in the flat, horizontal and vertical positions. Some brazing, soldering, air arc, plasma arc, slice torch, build up and surfacing are included. Five hours per week. (On demand)

**WELD 170 Practical Applications** (3)  
Opportunity to apply skills and knowledge gained in earlier courses. The student will work on manufacturing projects related to their career field of interest and advice of faculty. Job Shop may be substituted with approval of instructor. (On demand)

**WELD 211 GMAW** (1)  
**WELD 211L GMAW Laboratory** (4)  
Safe use of GMAW equipment and shop practices. Covers GMAW on mild steel, alloy steel, and aluminum in all positions. One hour lecture and four hours laboratory per week.

**WELD 221 FCAW** (1)  
**WELD 221L FCAW Laboratory** (2)  
Safe use of FCAW equipment and shop practices. Covers FCAW on mild and alloy steels. One hour lecture and four hours laboratory per week. (On demand)

**WELD 230 GTAW** (1)  
**WELD 230L GTAW Laboratory** (2)  
Safe use of Gas Tungsten Arc Welding (GTAW) equipment and associated shop practices, related to the GTAW of mild and stainless steels in flat and horizontal positions. One hour lecture and four hours laboratory per week. (On demand)

**WELD 235 Advanced GTAW** (3)  
Safe use of Gas Tungsten Arc Welding (GTAW) equipment and associated shop practices, related to the GTAW of Alloy metals in all positions. Prerequisite: WELD 230. (Spring)

**WELD 240 Pipe Welding** (1)  
**WELD 240L Pipe Welding Laboratory** (7)  
Continuation of WELD 120 emphasizing pipe welding. One hour lecture, eleven hours laboratory per week. Prerequisite: WELD 120 or consent of instructor. (On demand)

## COURSE DESCRIPTIONS

165

### **WELD 261 Testing & Inspection**

(3)

An advanced course covering testing and inspection of welds to determine soundness; visual, destructive, and nondestructive testing; and a study of codes and welder certification. (On demand)

### **WELD 295 Independent Study**

(1-2)

### **WELD 296 Topics**

(1-2)

### **WELD 299 Internship**

(1-14)



## ADMINISTRATION AND FACULTY

### MESA STATE COLLEGE ADMINISTRATIVE OFFICERS

- NICK ADAMS (2004), Athletic Director; B.S., M.S., Southern Illinois University - Edwardsville
- ANDREW BRECKEL, III (2004), Associate Vice President for Outreach and Dean of Students; B.A., Union College; M.A., University of Denver.
- PATRICK DOYLE (2004), Vice President for Finance; B.S., University of Detroit; M.A., Eastern Michigan University.
- TIMOTHY FOSTER (2004), President; B.A., Kenyon College; J.D., University of Denver.
- CAROL FUTHEY (2004), Vice President for Academic and Student Affairs; B.S.Ed., Slippery Rock State College; M.A., Southern Illinois University - Edwardsville; Ph.D., University of Cincinnati.
- CRAIG GLOGOWSKI (2005), Director of Development; B.S., Mesa State College.
- DUANE HRNCIR (1999), Associate Vice President for Academic Affairs and Professor of Environmental Science and Technology; B.S., University of Alabama; M.S., University of Massachusetts; Ph.D., Texas A&M University.
- ANDREW RODRIGUEZ (1989), Assistant Vice President of Auxiliary Services; B.S., University of Northern Colorado.
- ERIK VAN DE BOOGAARD (2002), Assistant Vice President for Facilities Services.
- KERRY YOUNGBLOOD (1992), Executive Director of the School of Applied Technology; B.S., Oklahoma State University; M.Ed., Colorado State University.
- LORI BRAA (2004), Senior Women's Administrator, B.S., University of Southern Colorado; M.A., University of Northern Colorado.
- SONIA BRANDON (2004), Director of Institutional Research and Assessment; B.A., M.A., University of Colorado at Colorado Springs.
- ELIZABETH BRODAK (1988), Acting Library Director and Head, Library Reference; B.A., Carthage College; M.L.S., University of Hawaii.
- TRACY BRODRICK (2004), Bookstore Manager; B.A., Chadron State College.
- JEREMY BROWN (1998), Associate Director of Telecommunications; B.S., Mesa State College.
- TIMI BROWN (2004), Head Women's Basketball Coach; B.A., University of Arizona; M.A., University of Northern Colorado.
- JAMES BUCHAN (1996), Head Women's Soccer Coach; B.S., St. Francis Xavier University; M.A., Pacific Lutheran University.
- TYRE BUSH (2002), Director of Admission; B.A., M.S. Ed., Elmira College.
- ANNETTE CALLAWAY (1999), Professional Staff Assistant to the Vice President for Academic and Student Affairs; B.S., M. Ed., Colorado State University.
- NANCY CONKLIN, Coordinator of Educational Access Services; B.A., M.A., University of Colorado.
- BILLY COTTS (2004), Assistant Athletic Trainer; B.A., Mesa State College; M.S., Brigham Young University.
- JESSICA COWDEN (2003), Music & Theatre Publicity Coordinator, B.A., Mesa State College
- BEVERLY CRADDOCK (2001), Director of Marketing and Publications; B.A., Colorado State University, M.B.A., Colorado Christian University.
- SHANON CRAWFORD (1998), Financial Aid Scholarship Coordinator.
- MISTY CURTIN-SELLDEN (1995), Associate Director of Admission; B.A., Mesa State College.
- JANICE DANFORTH (1999), Assistant Director of Admission and Public Relations; A.A.S., B.B.A., M.B.A., Mesa State College.
- GEORGE DELAHANTY (2003), Acting Coordinator of Placement Technology; B.A., Mesa State College.
- DOREEN DEMOND (2004), Acting Budgeting Services Coordinator; A.A., Lansing Community College; B.A., Michigan State University; C.P.A. (Inactive).
- KATHRYN DERRY (1997), Transfer Coordinator; A.A., Arapahoe Community College; B.A., M.A., University of Colorado at Denver.
- LINDA DU (1995), Associate Director of Banner Systems; B.A., Beijing College of Economics; M.B.A., State University of New York - Buffalo.
- SUZANNE ELLINWOOD (2000), Acting Purchasing Manager; B.S., University of Colorado-Boulder.

### MESA STATE COLLEGE ADMINISTRATIVE PERSONNEL

- RICK ADELMAN (2001), Director of Alumni Relations; B.B.A., Mesa State College.
- ROBERT ANTHONY (1984), Director of Intramural Sports; B.S., M.S., Southern Illinois University.
- PAUL ARNHOLD (1997), Assistant Director, Facilities Services.
- STEVEN AUSMUS (2003), Professional Staff Assistant to the Vice President for Finance; M.P.A., University of Colorado.
- ANGIE BERTRAND (2000), Acting Assistant Project Director, Americorps.
- JESSE BOND (2002), Web Master.
- BARBARA BORST (1981), Librarian, Head of Research Services and Interlibrary Loan; B.A., Sterling College; M.L.S., Indiana University.

- PATRICIA ELLIOTT (1995), Sports Information Director; B.S., University of Nevada.
- HEATHER EXBY (2003), Acting Director of Regional Programming; B.A., Colorado College, M.E., Harvard University.
- DAVID FLEMING (2005), Head Women's Volleyball Coach; B.A., Denison University; M.S., University of Michigan.
- JAY GAAS (2003), Acting Data Information Specialist; B.A., Mesa State College.
- ANDREW GURZICK (2004), Assistant Coach Women's Basketball; B.A., Western State College.
- PATRICK HAMPTON (2002), Registrar; B.S., Miami University, Oxford, Ohio; M.B.A., Ohio State University.
- CHRIS HANKS (1993), Head Baseball Coach; B.S., Mesa State College; M.A., University of Northern Colorado.
- THOMAS HARRIS (1991), Assistant Reference Librarian; B.S., M.L.I.S., University of Wisconsin.
- JIM HEAPS (1991), Head Men's Basketball Coach; B.S., Mesa State College; M.S., Southern Illinois University.
- DEBORAH HOEFER (1995), Assistant Director of the College Center; B.S., B.A., University of Denver.
- TINA HULIHEE-PELTIER (2000), Financial Aid Loan Coordinator; B.B.A., Mesa State College.
- KATHY HURSHMAN (1999), Assistant Controller; A.A.S., B.B.A., Mesa State College.
- ROBERT KALLINA (1995), Director, Student Recreation Center; B.S., University of Texas; M.A., Washington State University.
- MARK R. KASSELHUT (1994), Head of Media Services; B.S., M.A., Central Missouri State University.
- BENJAMIN R. KEEFER (1991), Director of Extended Campus Program and the Mesa State College Montrose Campus; A.A.S., Northeastern Junior College; B.S., M.Ed., Ph.D., Colorado State University.
- BARBARA CASE KING (2005), Director of Human Resources; B.S., University of Wyoming; J.D., University of Wyoming.
- DANIEL KIRBY (1999), Program Coordinator, Culinary Arts.
- ANNE KNIPE (2004), Acting Reference Librarian; B.A., Lawrence University; M.A., University of Wisconsin.
- ELIZABETH LARSEN (2002), College Center Program Coordinator; B.A., Brigham Young University; M.E., Oregon State University.
- CAROL LAWRENCE (2005), Financial Aid Customer Service Coordinator; B.S., M.A., University of North Dakota.
- SCOTT LINDQUIST (2005), Student Financial Counselor; B.S.W., Lewis-Clark State College; B.S., University of Idaho; M.Coun., Idaho State University.
- JAMI LLOYD (1999), Assistant Director of Admissions; B.A., Mesa State College.
- STEPHANIE DOMINGUEZ LONG (2003), Admission Counselor; B.B.A., Mesa State College.
- CINDY LUEB (2000), Director of Sponsored Programs; B.B.A., M.B.A., Stephen F. Austin State University.
- CURT MARTIN (1995), Director, Financial Aid; B.A., University of Nebraska.
- DANIELLE MORETTI MARTIN (2004), Acting Admissions Counselor for Programs; B.A. Mesa State College.
- BETSY MCNAIR (2003), Publicity Coordinator; B.A., University of Nebraska.
- JARED MEIER (2004), Acting Admissions Counselor for International Admissions; B.B.A., Mesa State College.
- MORGAN MILLER (2003), Acting Registration Coordinator; B.A., Mesa State College.
- RYAN MILLER (2001), Associate Athletic Director, A.A., Colby Community College; B.A., Mesa State College; M.A., Colorado Christian University
- KRISTIN MORT (1995), Head Softball Coach; B.A., Mesa State College; M.A., Colorado Christian University.
- JENNIFER NEVILLE (2003), Acting Assistant Volleyball Coach; B.S., University of Idaho.
- GERALD N. NOLAN (1984), Associate Director, Academic Computer Services; B.A., Northern Illinois University; M.A., University of Oregon.
- DALE OWENS (1999), Acting Assistant Football Coach; B.A., Mesa State College; M.A., University of Northern Colorado.
- JOE RAMUNNO (1997), Head Football Coach; B.A., University of Wyoming; M.A., University of Northern Colorado.
- DARIN ROBIDOUX (2001), Acting Assistant Football Coach; B.B.A., Mesa State College; M.A., University of Northern Colorado.
- PAUL ROLLAND (1998), Assistant Reference Librarian; B.A., M. Ed., University of Florida; M.L.S., Florida State University.
- BRYAN ROOKS (2003), Acting Administrative Associate; B.S., Mesa State College.
- ERIN ROOKS (2001), Admissions Counselor; B.B.A., Mesa State College.
- ROYIA RUFFIN (1999), Director of Advising and Career Center; A.A., University of Maryland; B.A., Mesa State College; M.A., Adams State College.
- ROBERT RYAN (1992), Athletic Trainer; B.A., Colorado University; M.A., University of Northern Colorado.
- ANDREW SHANTZ (2000), Acting Assistant Basketball Coach; B.A., Mesa State College.
- DEBORAH SNIDER (2000), Coordinator of Placement/Admission; B.A., Western Michigan University; M.A., University of Colorado at Boulder.
- ELISE ST. AMOUR (2004), Payroll/Accounts Payable Manager, B.B.A., M.B.A., Mesa State College.
- WHITNEY SUTTON (1997), Director of Budgeting; B.S., Mesa State College.
- JOSEPH TAYLOR (2005), Controller, B.A., Fort Lewis College.
- HOLLY TEAL (1997), Associate Registrar; B.S., Mesa State College.



- CHAD THATCHER (2002), Outdoor Program Coordinator; A.A., Clark College. B.A., M.E., Portland State University.
- RICHARD THOMAS (1996), Associate Director of Housing; B.S., M.S., Colorado State University.
- KATHLEEN R. TOWER (1972), Special Collections/Government Documents Librarian and Professor of Library Science; B.M.E., M.A., University of Denver; Ph.D., Texas Woman's University.
- MARY VAIL (2001), Graduate Programs Coordinator; B.A., Metropolitan State College of Denver.
- PATRICIA VERSTRAETE (1999), Director of Americorps; B.A., University of Pittsburgh; M.A., Western State College; Ed.D., Nova University.
- THOMAS WATSON (2002), Information Technology Specialist; B.S., U.S. Coast Guard Academy.
- TERESA WILKERSON (1990), Associate Director of Student Information Systems and Institutional Research; B.S., Mesa State College.
- DAVID WING (2003), Financial Aid Process Coordinator; B.S., Mesa State College.
- JONATHAN WILSON (2005), Financial Aid Work Study Coordinator and Counselor, B.A., M.A., University of Northern Colorado.
- TERRI WISE (1993), Coordinator of Testing Services & Assessment; A.A., Mesa State College.
- LYNN WOELLHOF (1998), Director of Instruction and Facilities, UTEC; B.A., University of Northern Colorado; M.E., University of Phoenix.
- KENNILYN WRIGHT (1998), Admission Counselor, UTEC; A.A., Eastern Arizona College; B.A., Mesa State College.
- ELLIE-ANN BALDWIN (2002), Assistant Professor of Teacher Education; B.A., M.A., California State University - Chico; Ed.D., Washington State University.
- RICHARD BALLARD (1985), Professor of Biology; B.A., M.S., California State University - Northridge; Ph.D., Utah State University.
- JULIE BARAK (1997), Associate Professor of English and Department Head of Languages, Literature, and Communication; B.A., M.A., Creighton University; Ph.D., University of Nebraska.
- BRUCE BAUERLE (1972), Professor of Biology; B.A., University of Kansas; M.S., University of Missouri; D.A., University of Northern Colorado.
- SUSAN BECKER (1996), Associate Professor of Psychology; B.A. Reed College; M.A., University of Colorado-Colorado Springs; Ph.D., University of Arizona.
- RICHARD BERKEY (1967), Associate Professor of English; B.A., Fort Lewis College; M.A., Eastern New Mexico University.
- CATHERINE BONAN-HAMADA (1996), Associate Professor of Mathematics; B.S., M.S., Colorado State University; Ph.D., University of Colorado.
- EDWARD BONAN-HAMADA (1997), Associate Professor of Mathematics; B.A., University of Rochester; M.A., University of Hawaii; Ph.D., University of Colorado.
- CLARE BOULANGER (1993), Professor of Anthropology; State University of New York - Plattsburgh; M.A., Ph.D., University of Minnesota.
- WILLIAM BRADLEY (2004), Assistant Professor of Art; B.A., University of Colorado - Boulder; M.A., Ph.D., Northwestern University.
- MORGAN BRIDGE (1995), Professor of Business Administration and Department Head of Business; B.B.A., M.B.A., Chadron State; Ph.D. University of Wyoming.
- JAMES BROCK (1998), Professor of Physical Sciences; B.S., M.S., University of Illinois.
- ESTHER BROUGHTON (1991), Professor of English; B.A., Utah State University; M.S., University of Texas., Ph.D., Indiana University of Pennsylvania.
- JULIE BRUCH (2002), Associate Professor of English; B.A., Western Michigan University; M.A., Ph.D., University of Kansas, Lawrence.
- BRAD BUCHHOLZ (1987), UTEC, Instructor of Applied Technology-Auto Collision; A.A.S., Mesa State College.
- JAMES BUCKLEY, C.P.A. (1972), Professor of Accounting; B.A., Western State College, M.S.; Colorado State University.
- CHRISTIAN BUYS (1983), Professor of Psychology; B.A., Hope College; Ph.D., University of Colorado.
- DONALD CARPENTER (2003), Associate Professor of Computer Information Systems; B.S., Kearney State College; M.B.A., University of Colorado - Colorado Springs; Ph.D., University of Nebraska - Lincoln.

## MESA STATE COLLEGE FACULTY

(Date in parentheses indicates year of tenure track appointment to Mesa State College professional staff. Prior temporary or part-time service is not indicated.)

- THOMAS ACKER (1999), Associate Professor of Spanish; B.S., Kutztown University; M.A., Ph.D., Temple University.
- JANE ARLEDGE (1997), Associate Professor of Mathematics; B.S., University of Texas; M.A., Ph.D., University of Colorado.
- ANDRES ASLAN (1999), Associate Professor of Geology; B.S., Brown University; M.S., Ph.D., University of Colorado.
- MONTE ATKINSON (1985), Professor of Music; A.S., Snow College, Utah; B.F.A., Utah State University; M.M., D.M.A., University of Illinois.
- CATHY BARKLEY (1995), Professor of Mathematics and Director of the Center for Teacher Education; B.S., Southern Nazarene University; M.S., Purdue University; Ph.D., Denver University.

- TIMOTHY CASEY (1998), Associate Professor of Political Science; B.S., Northern Arizona University; M.A., University of San Francisco; Ph.D., Arizona State University.
- PHYLLIS CHOWDRY (1976), Professor of Biology; B.S., University of Denver; M.N.S., Arizona State University; D.A., University of Northern Colorado.
- REX COLE (1995), Professor of Geology; B.S., Colorado State University; Ph.D., University of Utah.
- JILL CORDOVA (1992), Professor of Human Performance and Wellness; B.A., M.A., Humboldt State University; Ph.D., University of New Mexico.
- RICHARD COWDEN (2001), Assistant Professor of Theatre; B.A., Mesa State College; M.F.A., Ohio University of Theatre.
- DAVID COX (1981), Professor of Theatre and Department Head of Theatre; B.A., Mesa State College; M.F.A., University of Utah.
- ADELE CUMMINGS (1996), Associate Professor of Sociology; B.A., M.S., Florida State University; Ph.D., Duke University.
- WILLIAM DAVENPORT (1988), Professor of Mathematics; B.S., University of Tennessee; M.S., Texas A & M University; Ph.D., University of Alabama.
- FORBES DAVIDSON (1995), Professor of Biology; B.S., Oregon State University; Ph.D., University of Texas.
- KENNETH DAVIS (1995), Associate Professor of Mathematics; B.S., Reed College; M.S., Portland State University; Ph.D., Washington State University.
- JACK DELMORE (1992), Professor of Music, B.M., University of Lowell; M.M., New England Conservatory of Music; D.M.A., University of Arizona.
- CRAIG DODSON, (1995), Professor of Chemistry; B.S. University of Idaho; Ph.D. Colorado State University
- ARUN EKTARE (1986), Professor of Computer Science; Ph.D., University of Roorkee (India).
- CARLOS ELIAS (2000), Associate Professor of Music; B.M., Biola University; M.M., University of Cincinnati; Artist Diploma, Duquesne University.
- BYRON EVERS (1989), Associate Professor of Mass Communications; B.S., M.S., Murray State University.
- KAREN E. FORD (1984), Professor of Psychology; B.A., Mississippi College; M.A., Northeast Louisiana; Ph.D., University of Mississippi.
- SANDY FORREST, R.N. (1980), Professor of Nursing; B.S.N, Florida International University; M.S.N., University of Miami; Ph.D., University of Texas.
- CRAIG FOSSETT, (2004) Assistant Professor of Accounting; B.A., University of Missouri; M.B.A., Western State College.
- THERESA FRIEDMAN (2002), Associate Professor of Mathematics; B.S., Saint Joseph's University, Philadelphia; M.S., Ph.D., Lehigh University.
- LISA FRIEL (1998), Associate Professor of Teacher Licensure; B.A., University of California - Santa Barbara; M.Ed., Ed.D., Northern Arizona University.
- KEITH FRITZ (1997), Associate Professor of Human Performance and Wellness; B.S., Oregon State University; M.S., Ph.D., University of New Mexico.
- TERESA GARNER (1995), Professor of Art and Department Head of Art; B.F.A., M.A., Stephen F. Austin State University; M.F.A., West Texas A & M.
- GORDON GILBERT (1980), Professor of Physics; B.S., M.S., Ph.D., Massachusetts Institute of Technology.
- MICHAEL GIZZI (1995), Associate Professor of Political Science; B.A., St. Michael's College; M.A., Ph.D., University at Albany, State University of New York.
- SUE GOEBEL (1998), Assistant Professor of Nursing; B.S.N., M.S., University of Northern Dakota.
- JUDY GOODHART, R.N. (1990), Professor of Nursing; B.S. Loretto Heights; M.S.N., University of Colorado.
- ANDREW GORDON (1998), Associate Professor of Spanish; B.A., University of Colorado-Boulder; M.A., New York University; Ph.D., Columbia University.
- CHAD LEE GRABOW (1996), Professor of Computer Information Systems; B.S., Mankato State University; M.S., American University; M.A., Naval War College; Ph.D., Iowa State University.
- THOMAS GRAVES (1966), Professor of Counseling and Psychology; B.A., M.A., Adams State College; Ed.D., University of Northern Colorado.
- GEOFFREY GURKA (2001), Associate Professor of Accounting; B.A., University of Connecticut; M.A., Florida State University; Ph.D., Michigan State University.
- PHILIP GUSTAFSON (1998), Associate Professor of Mathematics; B.S., State University of New York - Oneonta; M.S., Ph.D., Washington State University.
- KURTIS HAAS (1999), Associate Professor of English; B.A., M.A., Truman State University; Ph.D., University of Nebraska.
- KRISTEN HAGUE (2001), Assistant Professor of English; B.A., Providence College; M.A., Ph.D., University of New Mexico.
- CHARLES HARDY (1979), Professor of Art; B.A., Colorado State University; M.F.A., University of Arizona.
- TIMOTHY HATTEN (1995), Professor of Business Administration; B.A., Western State College; M.S., Central Missouri State; Ph.D., University of Missouri.
- MYRA HEINRICH (1983), Professor of Psychology; B.S., M.A., Ph.D., University of North Dakota.
- CALVIN HOFER (1998), Associate Professor of Music and Department Head of Music; B.A., South Dakota State University; M.M.E., University of Wisconsin; D.M.A., University of Northern Texas.
- BETHANY HOFFMAN (1994), Associate Professor of Nursing; B.S.N., University of Cincinnati; M.S., University of Colorado.
- PETER IVANOV (1995), Professor of Theatre; A.A., Manatee Community College; B.A., Western Illinois University; M.F.A, Florida State University.

- ROBERT JOHNSON (1962), Professor of English; B.A., M.A., Western State College; Ph.D., University of Northern Colorado.
- VERNER JOHNSON (1989), Professor of Geology; B.A., M.S., Southern Illinois University; Ph.D., University of Tennessee.
- MARK JOYCE (2002), Professor of Teacher Education; Director of P.D.S. Program; B.S.Ed., M.S.Ed., Concordia Teachers' College; Ed.D., University of South Dakota.
- PHILIP KAVANAGH (1994), Associate Professor of Mathematics; B.Sc., M. Sc., University College Dublin, National University of Ireland; Ph.D., University of Wisconsin.
- WALTER KELLEY (1977), Professor of Biology; B.A., M.S., California State University-Northridge; Ph.D., Colorado State University.
- JOHN KNAPPENBERGER (1992), Professor of Business Administration; B.A., University of Central Florida; M.B.A., University of Colorado-Denver; Ph.D. University of Colorado-Boulder.
- BARRY LAGA (1997), Associate Professor of English; B.A., M.A., Brigham Young University; Ph.D., Purdue University.
- GUY LEADBETTER (1993), Associate Professor of Physical Education; B.A., Bowdoin College; M.S., University of Montana; Ph.D. University of New Mexico.
- RICHARD LIVACCARI (1997), Associate Professor of Geology; B.S., University of New Mexico; M.S., State University of New York - Albany; Ph.D., University of New Mexico.
- GARY LOOFT (1985), UTEC, Instructor of Applied Technology-Transportation; Certificate, Commercial Trades Institute.
- WARREN MACEVOY (2001), Associate Professor of Computer Science; B.S., Mesa State College; M.S., Ph.D., University of Arizona.
- LAWRENCE MADSEN (1988), Professor of Chemistry; B.S., Oregon State University; M.S., Ph.D., University of Washington.
- JEANNE MARIE (1995), Associate Professor of Nursing; B.S.N., Mesa College; M.S., University of Colorado.
- FRANK MARKHAM (2001), Associate Professor of Business Administration; B.S.M., Embry Riddle Aeronautical University; M.B.A., Troy State University; D.B.A., Louisiana Technical University.
- ROBERT MAYER (1987), Associate Professor of Travel, Recreation and Hospitality; B.A., M.S., University of Northern Colorado.
- GARY McCALLISTER (1973), Professor of Biology; B.S., M.S., Brigham Young University; D.A., University of Northern Colorado.
- DENISE McKENNEY (1996), Professor of Biology and Department Head of Biological Sciences; B.S., New Mexico State University; Ph.D., North Carolina State University-Raleigh.
- CARRIE McVEAN WARING (1996), Associate Professor of Biology; B.S., D.V.M., Colorado State University.
- BARRY MICHIRINA (1990), Professor of Anthropology; B.S., St. Francis College; M.S., Colorado State University; Ph.D., Pennsylvania State University.
- JESSICA MILLER (1996), Professor of Psychology; B.A., M.S., Ph.D., University of Wyoming.
- TAMERA MINNICK (2002), Associate Professor of Environmental Science and Technology; B.S., University of Nebraska; Ph.D., Colorado State University.
- JERRY MOORMAN (1990), Professor of Business Administration; M.Ed., Delta State University; B.S., Ed.D., Mississippi State University.
- LAVERNE MOSHER (1990), Professor of Art; B.A., University of Northern Colorado; M.F.A., Arizona State University.
- STEVEN ROSS MURRAY (1998), Associate Professor of Human Performance and Wellness and Department Head of Human Performance and Wellness; B.S., University of North Alabama; M.S., D.A., Middle Tennessee State University.
- MAUREEN NEAL (1995), Professor of English; B.A., University of Denver; M.A., Western State College; Ph.D., Texas A & M University.
- TIMOTHY NOVOTNY (1989), Professor of Statistics and Department Head of Computer Science, Mathematics and Statistics; B.A., B.S., University of Notre Dame; M.A., Creighton University; M.S.B.A., University of Denver; Ph.D., University of Wyoming.
- DOUGLAS O'ROARK (1994), Professor of History; B.A., M.A., Ph.D., Ohio State University.
- ERIK PACKARD (1996), Associate Professor of Mathematics; B.S., M.S., Ph.D., Texas Tech University.
- APARNA PALMER (1999), Associate Professor of Biology and Director of Honors Program; B.A., B.S., Colorado State University; Ph.D., Washington State University.
- LORI PAYNE (1996), Professor of Mathematics and Computer Science; B.A., Mesa College; M.S., New Mexico Institute of Mining & Technology; Ph.D., University of Northern Colorado.
- RANDY PHILLIS (1993), Professor of English; B.A., M.F.A., Wichita State University; Ph.D., Oklahoma State University.
- ELIZABETH PROPES (2004), Assistant Professor of History; B.A., Ph.D., University of Mississippi; M.A., University of Illinois.
- CAROLYN QUINN-HENSLEY (2000), Professor of Art; B.F.A., M.F.A., University of Hawaii.
- GARY RADER (1995), Professor of Computer Sciences; B.A., M.A., Ph.D., University of Pennsylvania; M.B.A., University of Phoenix.
- MAYELA VALLEJOS RAMIREZ (2003), Assistant Professor of Spanish; B.A., Universidad de Costa Rica; M.A., West Virginia University; Ph.D., University of Nebraska.

- PAUL REDDIN (1970), Professor of History; B.A., Adams State College; M.A., Ph.D., University of Missouri.
- JOHN REDIFER, (1994), Professor of Political Science and Department Head of Social and Behavioral Sciences; B.A., University of Maryland; M.A., Ph.D., Colorado State University.
- KRISTINE REUSS, R.N. (1990), Professor of Nursing and Director of Nursing and Radiologic Sciences; B.S., M.S.N., Ph.D., University of Colorado.
- GIGI RICHARD (2002), Assistant Professor of Geology; B.S., Massachusetts Institute of Technology, Cambridge; M.S., Ph.D., Colorado State University.
- JOSEPH RICHARDS, (1995), Professor of Chemistry; B.A., University of San Diego; Ph.D., University of North Carolina.
- DAVID ROGERS, C.P.A. (1975), Professor of Accounting; B.A., University of New Mexico; M.B.A., Golden Gate University.
- CHERYL ROY (1992), Associate Professor of Nursing; B.S., University of Iowa; M.S.N., University of Colorado.
- AMY RUSHNECK (2003), Assistant Professor of Teacher Licensure; B.S., M.S., Ph.D., University of Wisconsin - Madison.
- BETTE SCHANS (1994), Professor of Radiologic Technology; B.S., Metropolitan State College; M.S., University of Colorado.
- PATRICK SCHUTZ (1992), Assistant Professor of Business Administration; B.S., Eastern Michigan University; M.S., University of Utah, Ph.D., Colorado State University.
- STEVEN SCHULTE (1989), Professor of History; B.A. University of Wisconsin-River Falls; M.A. Colorado State University; Ph.D., University of Wyoming.
- LUIS SILVA-VILLAR (2000), Associate Professor of Spanish; M.A., Real Conservatorio Superior De Musica de Madrid; M.A., Ph.D., University of California - Los Angeles.
- WAYNE SMITH (1999), Lecturer of Culinary Arts.
- ANNE SPALDING (2001), Associate Professor of Computer Science; B.S., M.S., Ph.D., University of Colorado-Denver.
- SARAH SWEDBERG (1999), Associate Professor of History; B.A., State University of New York - Plattsburgh; M.A., Ph.D., Northeastern University, Boston.
- CINDY THOMAS (1999), Associate Professor of Nursing; B.S.N., University of Utah; M.S., University of Colorado.
- HARRY TIEMANN, JR. (1962), Professor of Psychology; B.A., M.A., University of Colorado; Ph.D., Colorado State University.
- WILLIAM TIERNAN (1999), Associate Professor of Physics; B.A., Colby College; Ph.D., University of Massachusetts.
- KARL TOPPER (1991), Professor of Environmental Science and Technology; B.S., University of Florida; M.S., Colorado State University; Ph.D., Utah State University.
- REGIS TUCCI (1999), Assistant Professor of Mass Communications; B.A., M.A., Marshall University.
- RICHARD VAIL (1997), Professor of Business Administration; B.S., University of California-Davis; M.S., University of Colorado; Ph.D., Oxford.
- HEATHER WAGGONER (1998), Associate Professor of Theatre; A.A., B.A., Indiana State University; M.F.A., Illinois State University.
- RUSSELL WALKER (1993), Associate Professor of Environmental Science and Technology and Department Head of Physical and Environmental Sciences; A.B., Oberlin College; Ph.D., Iowa State University.
- THOMAS WALLA (2001), Associate Professor of Biology; B.A., University of California - San Diego; Ph.D., University of Oregon - Eugene.
- PATRICE WARD (1998), Assistant Professor of Radiologic Sciences; B.S., Colorado Christian University.
- STEVEN WERMAN (1990), Professor of Biology; B.S., M.S., California State University - Long Beach; Ph.D., University of Miami.
- SUSAN WHITE (1992), Assistant Professor of Nursing, R.N.; B.S.N., Mesa State College; M.S., University of Arizona.
- BRENDA WILHELM (2000), Associate Professor of Sociology; B.A., University of Minnesota; M.A., Ph.D., University of Arizona.
- MARILYN WOUNDED HEAD (1993), Associate Professor of Art; B.F.A., Minneapolis College of Art/Design; M.F.A., University of South Dakota.
- WILLIAM WRIGHT (1998), Associate Professor of English; B.A., Linfield College; M.A., University of New Hampshire; Ph.D., University of Arizona.
- ZHONG CHAO WU (1989), Professor of Mathematics; B.S., China University of Science and Technology; Ph.D., University of Cambridge.
- SUSAN YEAGER (1988), Professor of Physical Education; B.A., Luther College; M.S., South Dakota State; P.E.D., Indiana University.

### MESA STATE COLLEGE RECENT EMERITUS FACULTY \*

*(Date in parentheses indicates year of retirement.)*

- DANIEL AROSTEGUY, B.S., M.S., Ph.D., Professor of Economics (1997).
- CHARLES BAILEY (1965), B.A., M.A., Professor of Mathematics (2005).
- PIERRE BETTELLI, B.S., M.S., Associate Professor of Business Computer Information Systems (1997).
- VIRGINIA BEEMER, B.S., M.A., Professor of Early Childhood Education (1998).
- WILLIAM BRANTON, Assistant Professor of Applied Technology (1995).

- JEFF BRIGHAM, B.A., M.A., Ed.D., Professor of Teacher Education (2003).
- CLIFFORD BRITTON, B.A., M.A., Professor of Mathematics (1996).
- TENNIE ANN CAPPS, B.S., M.Bus.Ed., Associate Professor of Business (1999)
- TESS CARMICHAEL, B.A., M.A., Assistant Professor of Speech and Mass Communication (2003).
- DALE DICKSON, B.A., B.A., M.Ed., Ed.D., Professor of Business Management (1999).
- CHARLES FETTERS, B.S., M.A., Associate Professor of Applied Technology (2001).
- D'ANN FUQUAY, B.A., M.A., M.S., D.A., Professor of Computer Science (2001).
- JOSE GALLEGOS, B.A., M.A., Ph.D., Professor of English (1999).
- MICHAEL GERLACH, B.S., M.A., Ph.D., Professor of Theatre (2002).
- RAY GREB, B.A., M.A., Professor of Machining (2000).
- DONNA HAFNER, B.A., M.A.T., Associate Professor of Mathematics (2001).
- BETTY HARRIS, B.S., M.S., Professor of Accounting. (2004).
- EDWIN HAWKINS, B.A., M.A., Professor of Mathematics (2000).
- FORREST HOLGATE, B.A., Assistant Professor of Applied Technology (2001).
- EDWARD HURLBUT, B.A., M.S., Ph.D., Professor of Biology (1999).
- SUZANNE JANDRIES, B.A, M.F.A., Professor of Art (2004).
- JAMES JOHNSON, B.A., M.S., Ph.D., Professor of Geology (1999)
- CARL KERNS, B.A., M.S., Ed.D., Professor of Mathematics (2000).
- DANIEL MacKENDRICK, B.A., M.A., Professor of English (1998).
- DENISE McGINNIS, B.Ed., M.B.A., Ph.D., Professor of Computer Information Systems, Business (2005)
- JOHN MARSHALL, B.S., M.S., Ph.D., Professor of Physics (1996).
- PRASANTA MISRA (1988), B.S., M.S., Ph.D., Professor of Physics (2005).
- KAREN PERRIN, B.S., M.S., Associate Professor of Physical Education (2002).
- DAVID REES, B.S., M.S., Ph.D., Professor Economics (2004).
- MARGARET ROBB, B.A., M.A., Associate Professor of Speech (2000).
- JAMES RYBAK, B.S.E.E., M.S., Ph.D., Professor of Engineering and Mathematics (2005)
- DOUGLAS SCHAKEL, B.A., M.A., Assistant Professor of Physical Education (2001).
- PAUL SCHNEIDER, B.A., M.A., Associate Professor of Music (2000).
- ROBERT SOWADA, B.A., M.A., Associate Professor of Foreign Language (2002).
- MARLYN SPELMAN, B.A., Ph.D., Professor of English (1996).
- TED SWANSON, B.S., M.A., Ph.D., Professor of Recreation (1998).
- BARRY THARAUD, B.A., M.A., Ph.D., Professor of English (2002).
- KAREN TUINSTRA, B.A., M.S., Ph.D., Professor of Teacher Education (2000).
- PAUL WELLS, A.S., B.A., Assistant Professor of Applied Technology - Auto Collision (1998).
- EILEEN WILLIAMS, R.N., B.S., M.S., Professor of Nursing (1996).
- JOHN ZEIGEL, B.A., M.A., Ph.D., Professor of English (1998).

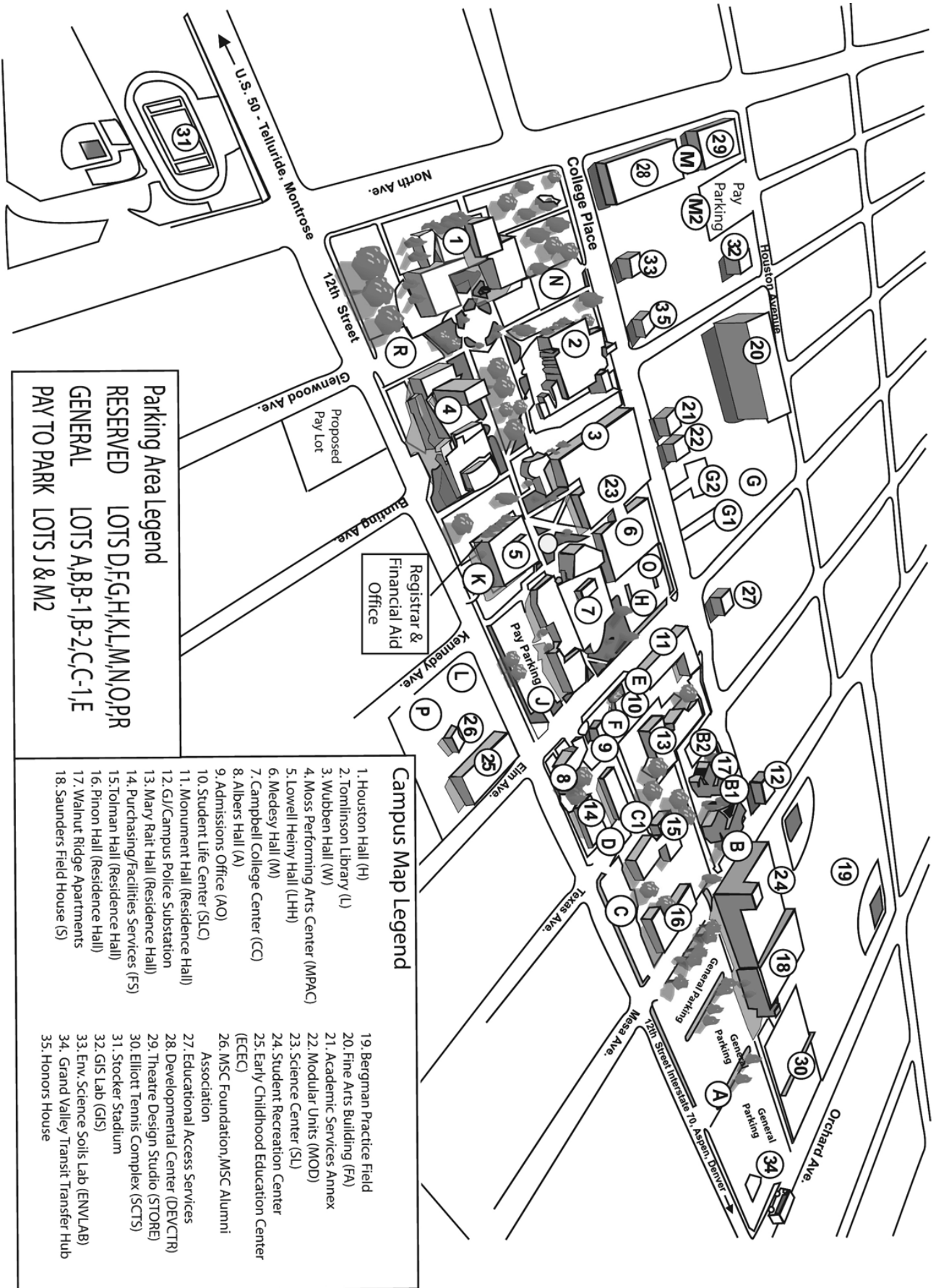
\* In accord with Faculty Senate action, this list includes only faculty receiving emeritus status in the past ten years.

### MESA STATE COLLEGE VISITING PROFESSORS

- CARL ABBOTT (1985), Wayne N. Aspinall Professor of History; B.A., Swarthmore College; M.A., Ph.D., University of Chicago.
- STEPHEN BENNET (1995), Wayne N. Aspinall Professor of History; B.S., M.S., Illinois State University, Normal; Ph.D., University of Illinois, Urbana-Champaign.
- ALAN BLOCK (1996), Wayne N. Aspinall Professor of History, Political Science, and Public Affairs; A.B., Ph.D., University of California-Los Angeles; M.A., California State University.
- PETER BOYLE (1989), Wayne N. Aspinall Professor of History and American Studies; M.A., Glasgow University, Scotland; Ph.D., University of California, Los Angeles.
- GEORGE BROWDER (2001), Wayne N. Aspinall Professor of History; B.S., Memphis State University; M.A., Ph.D., University of Wisconsin at Madison.
- JOANNE CARLSON BROWN (1988), Cosmicos Professor of Religious Studies; A.B., Mount Holyoke College; M. Div., Garrett Theological Seminary; Ph.D., Boston University.
- WALKER CONNOR (1992), Wayne N. Aspinall Professor of Political Science; John R. Reitmayer Professor of Political Science, Trinity College, Hartford, Connecticut.
- ROGER DINGMAN (1991), Wayne N. Aspinall Professor of History; B.A., Stanford; M.A., Ph.D. Harvard.
- ALLAN DUFFUS (1989), Professor of Accounting; Charles Stuart University, Australia.
- EMMANUEL FELDMAN (1987 and 1991), Cosmicos Professor of Religious Studies; B.S., M.A., Johns Hopkins University; Ph.D., Emory University.

- RICHARD FUNSTON (1987), Wayne N. Aspinall Professor of Political Science; B.A., M.A., Ph.D., University of California - Los Angeles; J.D., University of San Diego.
- ANDREW GULLIFORD (1997), Wayne N. Aspinall Professor of History; B.A., M.A.T., Colorado College; Ph.D., Bowling Green State University.
- DENIS HINE (1985), Cosmicos Professor of Religious Studies; A.B., St. Benedict's Seminary; S.T.L., S.E.O.L., Oriental Institute, Rome.
- GORDON MARTIN, JR. (1998), Wayne N. Aspinall Lecturer of Political Science, History, and Public Affairs; A.B., Harvard College; J.D., New York University.
- DAN MCGILL (1995), Cosmicos Professor of Religious Studies; B.A., Metropolitan State College; M.A., St. Thomas Seminary.
- THOMAS MILLINGTON (2002), Wayne N. Aspinall Professor of Political Science; B.A., Williams College; M.A., Ph.D., Johns Hopkins School of Advanced International Study.
- ROBERT MORTIMER (1986), Wayne N. Aspinall Professor of Political Science; B.A., Wesleyan University; M.A., Ph.D., Columbia University.
- FR. THOMAS MUNSON (1990 and 1992), Cosmicos Professor of Theology; A.B., Loyola University; Ph.L., S.T.L. West Baden College; Ph.D., University of Louvain, Belgium.
- WILLIAM PARRISH (2000), Wayne N. Aspinall Professor of History, Political Science and Public Affairs; B.S., Kansas State University; M.A., Ph.D., University of Missouri.
- EDWIN PERKINS (2003), Wayne N. Aspinall Professor of History, Political Science, and Public Affairs; B.A., College of William and Mary; M.B.A., University of Virginia; Ph.D., Johns Hopkins University.
- MORT PERRY (1996), Cosmicos Professor of Religious Studies; B.A., Rutgers University; M.A., University of Wyoming; M. Phil., Syracuse University.
- GLENDA RILEY (1993), Wayne N. Aspinall Professor of History, Political Science and Public Affairs; Ph.D., University of Ohio.
- PAMELA RINEY-KEHRBERG (1999), Wayne N. Aspinall Professor of History; B.A., Colorado College; M.A., Ph.D., University of Wisconsin.
- WILLIAM ROBBINS (1990), Wayne N. Aspinall Professor of History; B.S. Western Connecticut; M.A., Ph.D., University of Oregon.
- FRANK ROSENTHAL (1994), Cosmicos Professor of Theology; Ph.D., University of Pittsburgh.
- ZACHARY SMITH (1994), Wayne N. Aspinall Professor of History, Political Science and Public Affairs; B.A., California State University, Fullerton; M.A., Ph.D., University of California, Santa Barbara.
- JEROME STEFFEN (1988), Wayne N. Aspinall Professor of History; B.S., University of Wisconsin, Madison; M.A., Eastern Michigan University; Ph.D., University of Missouri.

# Mesa State College Main Campus



**Parking Area Legend**

RESERVED LOTS D,F,G,H,K,L,M,N,O,P,R  
 GENERAL LOTS A,B,B-1,B-2,C,C-1,E  
 PAY TO PARK LOTS J & M2

- Campus Map Legend**
- 1. Houston Hall (H)
  - 2. Tomlinson Library (L)
  - 3. Wubben Hall (W)
  - 4. Moss Performing Arts Center (MPAC)
  - 5. Lowell Heiny Hall (LHH)
  - 6. Medesy Hall (M)
  - 7. Campbell College Center (CC)
  - 8. Albers Hall (A)
  - 9. Admissions Office (AO)
  - 10. Student Life Center (SLC)
  - 11. Monument Hall (Residence Hall)
  - 12. GJ/Campus Police Substation
  - 13. Mary Rait Hall (Residence Hall)
  - 14. Purchasing/Facilities Services (FS)
  - 15. Tolman Hall (Residence Hall)
  - 16. Pinon Hall (Residence Hall)
  - 17. Walnut Ridge Apartments
  - 18. Saunders Field House (S)
  - 19. Bergman Practice Field
  - 20. Fine Arts Building (FA)
  - 21. Academic Services Annex
  - 22. Modular Units (MOD)
  - 23. Science Center (SL)
  - 24. Student Recreation Center
  - 25. Early Childhood Education Center (ECEC)
  - 26. MSC Foundation, MSC Alumni Association
  - 27. Educational Access Services
  - 28. Developmental Center (DEVCTR)
  - 29. Theatre Design Studio (STORE)
  - 30. Elliott Tennis Complex (SCTS)
  - 31. Stocker Stadium
  - 32. GIS Lab (GIS)
  - 33. Env. Science Soils Lab (ENV/LAB)
  - 34. Grand Valley Transit Transfer Hub
  - 35. Honors House

## COLLEGE FACILITIES

**Houston Hall** (1940), the first permanent building on the campus was totally remodeled in 1979-80 and includes classrooms and computer laboratories where a variety of subject areas are taught such as business, humanities, and social and behavioral sciences.

**Wubben Hall** (1962) contains classrooms, laboratories, offices and storage areas for physical and life sciences, mathematics, and computer sciences. A special feature is an octagonal lecture hall that seats one hundred persons. This building was completely remodeled in 1998 and connected to the new Science Center.

**The Science Center** (1996) contains modern laboratories for biology, chemistry, geology, and environmental sciences. This building also contains an electron microscopy laboratory, a herbarium, and animal holding facilities. A special feature is the Saccomanno Lecture Hall that seats 120 and has full multimedia capabilities. An attractive courtyard between this building and Wubben Hall provides space for outdoor lectures and study.

**Moss Performing Arts Center** construction was completed in 2002 which added a 300 seat recital hall, a 150-seat experimental theatre, choral and instrumental rehearsal rooms, dressing rooms, offices, and music practice rooms to the former Walter Walker Fine Arts Center (1969). The south side of the building is home to classroom, office, and performance space for drama programs. This portion of the building features a 605-seat theatre with fly loft and modern drama lighting systems.

The **Fine Arts Building** (2002) provides studio laboratories, offices, and classrooms for Studio Art, Graphic Design, and Mass Communication. This facility has large covered outdoor work areas for ceramics kilns and a bronze foundry. A state of the art TV production studio is part of the Mass Communication facilities. The building is designed to allow viewing of the studio laboratories activities from the hallways.

**William A. Medesy Hall** (1969, remodeled in 1992, 1996), houses offices, classrooms, and laboratories for the Nursing and Radiologic Sciences programs, and Little Mavericks day care.

**Roe F. Saunders Physical Education Center** (1968, 1996), provides facilities for a variety of physical education and recreation activities. Major features include an all-purpose gymnasium, swimming and diving pools, locker and shower rooms, classrooms, and office space for the Human Performance and Wellness faculty. Physical education and practice athletic fields are located immediately west of the center with tennis courts to the north of the facility.

The **W. W. Campbell College Center** (1962, remodeled 1990-91), houses the Bookstore, Johnson art gallery, Outdoor Program, student government offices, MAVCard office,

KMSA - radio station, Criterion - school paper, Game Room, Bookcliff Cafe, Information Desk, Dining Hall, student lounges, Cultural Diversity Center, Wells Fargo Customer Service branch, and meeting rooms. The Game Room includes pool tables, electronic darts, foosball, and general student computers to be used to check e-mail or access the internet between classes. Liff Auditorium is the location of many of the entertainment programs organized by the student-run Activities Council.

The **Student Recreation Center** opened in January of 1996. The recreational gymnasium complex consists of two basketball courts, volleyball, badminton, team handball and indoor soccer areas. A large fitness area is equipped with weights and cardiovascular machines. An indoor track and a 28-foot high climbing wall are also part of the 33,000 square-foot facility.

Four 200-student residence halls—**Tolman, Rait, Pinon and Monument Halls** (1966, 1967, 1997), provide comfortable living quarters for students. Most of the rooms are doubles, but a few single rooms are available. All rooms are furnished with modern, wall-hung furniture.

**Walnut Ridge Apartments** (1978), are available to sophomores, juniors, and seniors. Furnished two- and three-bedroom units include housekeeping facilities.

**Lowell Heiny Hall** (1967), a four-level building housing faculty and administrative offices, was totally remodeled in 1986-87.

The **John U. Tomlinson Library** (1986), expands the traditional library concept to include storage and circulation for all commonly used forms of information such as microfilm, microfiche, audio tapes, video tapes, slides, films, records and computer disks.

The **Industrial Energy Training Center** (1982), houses staff offices, training areas and classrooms. The Colorado Environmental Education and Training (CEET) Laboratory and the lineworker program are at this site (located at 29 and D Roads).

The **Tilman M. Bishop Unified Technical Education Center** (1992) houses staff offices, shops, a computer laboratory, training areas and classrooms. UTEC serves college, continuing education, and high school students. Additionally, the facility is available on a contract basis for use by area business and industry. UTEC is located on Blichmann Avenue in the Foresight Industrial Park.

The Mesa State College **Montrose Campus** contains classrooms, a computer lab, a telecommunications lab, and staff offices. Located on S. Cascade in Montrose, the facility was occupied in 1998 and serves college and continuing education students.



## GLOSSARY

The glossary contains definitions of terms and abbreviations used throughout the catalog. Students can consult this list for general information about common terms connected to programs, courses, and policies and specific catalog sections for additional details.

**ACADEMIC TERM** - A period of instruction. During the fall and spring, the term is a standard 15-week semester. During the summer, various length periods of instruction are offered. The term regular semester refers to fall or spring semester.

**ACADEMIC YEAR** - The traditional cycle of academic terms: fall and spring.

**ACADEMIC SUSPENSION** - Denial of all registration privileges for a specified period of time (minimum one full semester) because of failure to meet minimum academic standards. Suspended students must be readmitted to the college before continuing enrollment.

**ACADEMIC PROBATION** - The failure of a student to meet the standards required for good standing. Student will be placed on academic probation for one semester and must maintain a 2.00 GPA or higher to avoid academic suspension.

**ACADEMIC RENEWAL** - Following an absence from the college of at least five years, a student may apply for "academic renewal." If approved, none of the course credits and grades earned at Mesa State College prior to the five-year minimum absence will be used for meeting graduation requirements or in determining the student's grade point average.

**ACADEMIC RESIDENCY** - A specified minimum number of credit hours that must be earned at Mesa State College to receive a degree.

**ACCREDITATION** - Certification that the college or program has met established standards and is recognized by appropriate accrediting agencies.

**ADD/DROP** - A period of time when students can alter class schedules by adding or dropping classes or changing sections of a course. Prior to the first day of the semester, schedule changes can be processed via the Web. Instructor signatures must be obtained beginning the first day of the classes through the specified ending date each semester.

**ADMISSION** - Status of students who have applied and have been accepted to the college.

**AUDIT** - A registration status which allows a student to attend and to participate in a course without benefit of a grade or academic credit. The "audit" status must be recorded in the Registrar's Office within the add/drop deadlines.

**ASSOCIATE'S DEGREE** - Degree awarded upon satisfactory completion of a prescribed, planned program of

approximately 60 credit hours. This can be completed in two years of study with an average of 15 semester hours per semester in the fall and spring terms.

**BACCALAUREATE DEGREE** - Bachelor's degree: the traditional undergraduate degree. Awarded for completion of an undergraduate program of study, usually of 120 semester hours. This can be completed in four years of study with an average of 15 semester hours per semester in the fall and spring terms. Bachelor's degrees are comprised of general education courses, a major, and elective courses.

**CAPSTONE** - A course, project, paper, presentation, event, or exhibit that must be completed, usually in the senior year, before graduation. A capstone demonstrates in an integrated way everything that has been learned while pursuing a particular major.

**CERTIFICATE OF OCCUPATIONAL PROFICIENCY** - Award for the completion of technical coursework designed to train students for specific skills required for employment in various vocational occupations.

**COLLEGE OPPORTUNITY FUND (COF)** - The method of funding state tax dollar support for students enrolled in Colorado public higher education via a voucher. Implemented in fall 2005, qualifying students create an account at the College Access Network into which the voucher is deposited and, upon registration by the student at a participating institution, then is transferred to the college.

**CONCENTRATION** - An area of interest within a major that is defined by a group of courses. Number of hours will vary by major.

**CONTACT HOURS** - The number of weekly hours student meets in a class, lab, studio, clinical, or class/lab.

**COREQUISITE** - Course(s) that must be taken concurrently with one or more additional courses. Subject matter often is similar or complementary.

**COURSE LOAD** - The total number of semester hours registered for in a given academic term.

**CUMULATIVE GRADE POINT AVERAGE** - An average GPA calculated by dividing the total number of quality points/grade points obtained (credit hours X grade points) by the number of credit hours attempted during all academic sessions at Mesa State. Grades from other institutions are not included in the calculation.

**DEAN'S LIST** - Recognition of students who achieve a grade point average of between 3.50 and 3.99 while enrolled for a minimum of 12 semester hours in a fall or spring semester.

**DEGREE** - A title which the college confers on a student who has satisfactorily completed a required course of study. Degree requirements are established by the college and departments, and are approved by the college's faculty, administration, and authorized by the Colorado Commission on Higher Education. The college offers degrees at three levels: associate, baccalaureate, and master's.

**DEGREE DISTINCTION** - Six credit hours earned beyond general education requirements that differentiate baccalaureate degrees in arts, science, and business administration.

**DISCIPLINE** - A recognized subject area or field of study within which courses are structured.

**DISTANCE LEARNING** - Courses offered for credit by an alternative means of delivery for students who need college credit but are unable to travel to campus on a regular weekly basis (e.g. telecourses, interactive video, or online).

**DOUBLE MAJOR** - Completing the requirements of more than one major within the same degree designation (e.g., a Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration). A student could earn one baccalaureate degree with multiple majors (e.g., Bachelor of Arts with a double major in Psychology and Sociology). Students must meet all the requirements for the degree and for each major.

**DUAL/DOUBLE BACCALAUREATE DEGREE** - Completing the requirements of more than one major with different degree designations (e.g., a Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration). A student earning two baccalaureate degrees (e.g., Bachelor of Arts in History and a Bachelor of Science in Mathematics) must meet all the requirements for each degree, each major, and additional requirements found in the "Undergraduate requirements section" for the second baccalaureate.

**ELECTIVES** - Courses selected at a student's discretion. Electives may be partially restricted, such as a selection from a specified group of courses identified to fulfill a particular requirement or they may be "free" electives which may be selected from any course for which the student has proper prerequisites. Electives provide opportunities for students to pursue personal interest and to gain general knowledge.

**ENROLLMENT** - Registration for course work and payment of fees constitutes official enrollment. For financial aid purposes, a student must enroll for 12 credit hours to be classified full-time; for other purposes, the minimum may be higher. For graduate students, a nine-hour load is typical for full-time classification.

**GENERAL EDUCATION** - A college-wide requirement of basic courses that form the foundation of all undergraduate degree programs.

**GENERAL EDUCATIONAL DEVELOPMENT (GED) DIPLOMA** - Award granted upon passing tests that measure student learning normally acquired by completing a typical high school program of study.

**GOOD STANDING** - A sliding scale of academic status achieved by students for semester hours attempted. Determines eligibility of students to continue to register for college course work.

**GRADE IMPROVEMENT** - Repeat of any course more than once for academic credit at Mesa State College done so only for "grade improvement." Academic credit is awarded only once and the last grade received is the one used to compute the student's cumulative grade point average and to fulfill requirements for the degree. Some exceptions to this policy apply.

**GRADE POINT AVERAGE (GPA)** - A measure of a student's academic performance which is computed by dividing credit hours attempted into grade points earned to determine the mean average grade of all courses taken for credit. Does not include courses taken as pass/fail.

**GRADUATE STUDENT** - A student who has earned a baccalaureate degree and who is pursuing a master's degree program.

**GRADUATION HONORS** - Recognition of graduating students who meet the following academic criteria:

- With Distinction - Associate degree graduates with cumulative grade point averages of 3.50 to 3.74.
- With High Distinction - Associate degree graduates with cumulative grade point averages of 3.75 to 4.00.
- Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.50 to 3.74.
- Magna Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.75 to 3.89.
- Summa Cum Laude - Baccalaureate degree graduates with cumulative grade point averages of 3.90 to 4.00.

**INDEPENDENT STUDY** - An upper-division course designated by a special number within a discipline. Allows a student to pursue an individual project independently, for credit, under the supervision of an instructor. Requires consent of the instructor.

**LEVELING COURSES** - A set of equivalent courses for graduate students who have not completed specific undergraduate courses prior to beginning graduate study.

**MAJOR** - A set of required courses from one or more departments in a subject chosen as the student's principal

field of study. Designed to provide students with the knowledge, skills, and experiences necessary to pursue a specific career and/or advanced study.

**MASTER'S DEGREE** - A post-baccalaureate degree. All master's degree candidates must maintain a 3.00 GPA to remain in good academic standing.

**MATRICULATION** - Enrollment as an admitted, degree-seeking student.

**MINOR** - An officially-recognized secondary field of study requiring fewer units than the major. A minor must be in an approved subject area and is less comprehensive than the major.

**MULTIPLE CONCENTRATIONS** - Completing the requirements of more than one concentration within the same major (e.g., Bachelor of Arts in Mass Communication with a double concentration in Print Media and Public Relations). Students must meet all the requirements for the degree, major, and each concentration.

#### **PRE-COLLEGIATE CURRICULUM**

**REQUIREMENTS** - Requirements established by the Colorado Commission on Higher Education for students graduating from high school in spring 2008 or later and seeking admission to a Colorado public four-year college or university.

**PREREQUISITE** - Requirement(s) that must be taken and passed before a higher level course may be taken. Sometimes, permission of the instructor or another requirement (such as graduate status) may be a prerequisite for a course. Prerequisites may include: (1) Course or courses that must be completed before a higher-level course may be taken, sometimes allowed by the instructor to be taken concurrently; (2) Courses outside the major department that must be completed before admission to the major; (3) Successful completion of high school courses

(as in languages); (4) Minimum SAT or ACT scores or sub-scores; (5) Minimum placement test scores; or (6) Acceptance into a certain program.

**PRESIDENT'S LIST** - Recognition of students who achieve a grade point average of 4.00 while enrolled for a minimum of 12 semester hours in a fall or spring semester.

**PRIORITY REGISTRATION** - Designated period of early registration for currently enrolled students.

**QUALITY POINTS** -The number points attributed to a grade (A=4, B=3, C=2, etc.) times the number of credit hours in the course.

**REGISTRAR** - Office responsible for registering students into classes, maintaining academic records, and certifying degree requirements for graduation.

**STUDENT CLASSIFICATION** - Student level based on the number of semester hours successfully completed as follows:

|            |           |
|------------|-----------|
| 0 - 30     | Freshman  |
| 31 - 60    | Sophomore |
| 61 - 90    | Junior    |
| 91 - above | Senior    |

**TRANSCRIPT** - An official document issued by the Registrar that lists the entire academic record of a student at the college.

**TRANSFER CREDIT** - Course work completed at another institution that is accepted for credit toward a degree at the college. Grades from these courses are not included in calculation of a student's cumulative GPA.

**UNDERGRADUATE** - A student working toward a certificate of occupational proficiency, an associate degree, or a baccalaureate degree.

## ALPHABETICAL SUBJECT INDEX

| SUBJECT   | PAGE               | SUBJECT  | PAGE                   |
|---|--------------------|--|------------------------|
| <b>- A -</b>  |                    |  |                        |
| Academic Calendar . . . . .                                 | inside front cover | Non-Degree Seeking Students . . . . .                      | 14                     |
| Academic Honors Program . . . . .                           | 78                 | Non-Traditional Students . . . . .                         | 13                     |
| Academic Policies, General . . . . .                        | 32                 | Probationary Admission Status . . . . .                    | 12                     |
| Good Standing . . . . .                                     | 177                | Returning Students . . . . .                               | 14                     |
| Grade Improvement . . . . .                                 | 33, 177            | Transfer Students . . . . .                                | 13                     |
| Grading System . . . . .                                    | 32                 | Admission Procedures, Graduate . . . . .                   | 80                     |
| Graduate Program . . . . .                                  | 80                 | Master of Business Administration . . . . .                | 85                     |
| Probation, Academic . . . . .                               | 33, 176            | Admission to Specific Undergraduate Programs . . . . .     | 16                     |
| Renewal, Academic . . . . .                                 | 33, 176            | Advanced Placement . . . . .                               | 33                     |
| Residency, Academic . . . . .                               | 39, 44, 176        | Advising, Academic   |                        |
| Standards, Academic . . . . .                               | 32, 176            | Undergraduate (see Advising and Career Center) . . . . .   | 25                     |
| Student Conduct . . . . .                                   | 38                 | Graduate . . . . .   | 81                     |
| Suspension, Academic . . . . .                              | 33, 176            | New Students (see SOAR) . . . . .                          | 17                     |
| Transfer Student . . . . .                                  | 13                 | Affirmative Action Officer . . . . .                       | 3                      |
| Academic Probation . . . . .                                | 33, 176            | Alcohol/Drug Education (AWARE Program) . . . . .           | 26                     |
| Academic Renewal . . . . .                                  | 33, 176            | Animal Research, Human Subject and . . . . .               | 84                     |
| Academic Residency . . . . .                                | 39, 44, 176        | Anthropology (see Sociology) . . . . .                     | 71, 88                 |
| Academic Standards . . . . .                                | 32                 | Applied Studies, General Education,                        |                        |
| Academic Suspension . . . . .                               | 33, 176            | Baccalaureate . . . . .                                    | 43                     |
| Academic Term . . . . .                                     | 176                | Applied Technology (see UTEC) . . . . .                    | 8                      |
| Academic Year . . . . .                                     | 176                | Art . . . . .  | 48, 89                 |
| Acceleration of College Study . . . . .                     | 17                 | Art (leading to K-12 teacher licensure) . . . . .          | 48, 90                 |
| Accounting . . . . .  | 46, 87             | Assessment and Counseling Test . . . . .                   | 16                     |
| Accounting Technician (see Administrative Office            |                    | Assessment and Evaluation after Enrollment . . . . .       | 17                     |
| Technology) . . . . .                                       | 46                 | Associate Degree Requirements . . . . .                    | 44                     |
| Accreditation . . . . .                                     | 7, 176             | Associate Degrees (See Programs                            |                        |
| Accuplacer . . . . .  | 13, 15             | of Study) . . . . .  | 9, 10, 44, 46, 76, 176 |
| ACT or SAT Scores   |                    | Associated Student Government . . . . .                    | 27                     |
| General Undergraduate . . . . .                             | 12, 16             | Athletic Training (see Human Performance                   |                        |
| Radiologic Technology Students . . . . .                    | 16                 | and Wellness) . . . . .                                    | 58                     |
| Activities, Student . . . . .                               | 27                 | Athletics, Intercollegiate . . . . .                       | 27                     |
| Activities Council, Mesa State . . . . .                    | 27                 | Athletics, Intramurals . . . . .                           | 28                     |
| Adapted Physical Education (see Human Performance and       |                    | Attendance . . . . .                                       | 29                     |
| Wellness) . . . . .   | 58                 | Audit/No-Credit Desired Courses . . . . .                  | 30, 176                |
| Add/Drop . . . . .  | 29, 176            | Automotive Service (see Transportation                     |                        |
| Administration and Faculty . . . . .                        | 166                | Services . . . . .   | 73                     |
| Administration of Justice (see Political Science) . . . . . | 68                 | Automotive Technology (see Transportation                  |                        |
| Administrative Office Technology . . . . .                  | 46, 88, 145        | Services . . . . .   | 73                     |
| Admission Information, Undergraduate . . . . .              | 12, 176            | AWARE Program . . . . .                                    | 26                     |
| Admission Assessment . . . . .                              | 16                 | <b>- B -</b>   |                        |
| Confirmation of Attendance . . . . .                        | 16                 | Baccalaureate Degree Requirements . . . . .                | 39                     |
| Early Scholars Program . . . . .                            | 14                 | Baccalaureate Degrees (see Programs of                     |                        |
| How to Apply . . . . .                                      | 12                 | Study) . . . . .   | 8, 10, 46, 176         |
| Precollegiate Curriculum Requirements . . . . .             | 15, 178            | Behavioral Clinical Services . . . . .                     | 26                     |
| SOAR . . . . .  | 17                 | Biological Sciences . . . . .                              | 75                     |
| Admissions Office . . . . .                                 | 12, 25             | Biology . . . . .  | 49, 92                 |
| Admission Procedures by Student Classification . . . . .    | 12                 | Biology Emphasis, Associate of Science Degree . . . . .    | 49                     |
| GED Certificate Students . . . . .                          | 12, 177            | Biology (leading to secondary teacher licensure) . . . . . | 49                     |
| High School Students . . . . .                              | 12                 | Bookstore . . . . .  | 175                    |
| Home Schooled Students . . . . .                            | 13                 | Broadcasting (see Mass Communications) . . . . .           | 63                     |
| International Students . . . . .                            | 14                 | Business Administration . . . . .                          | 50, 95                 |
|   |                    | Bachelor of Applied Science Degree . . . . .               | 50                     |

| SUBJECT  | PAGE                |
|--|---------------------|
| Bachelor of Business Administration Degree                           | .50                 |
| Business Administration Emphasis, Associate of Arts Degree           | .50                 |
| <b>- C -</b>   |                     |
| CAD (Computer Aided Design Technology, see Manufacturing Technology) | .61, 98             |
| Calendar, Academic   | inside front cover  |
| Campus Dining  | .23                 |
| Campus Directory   | inside back cover   |
| Campus Map   | .174                |
| Campus Parking   | .28                 |
| Campus Recreation Services   | .28                 |
| Campus Security Act  | .3                  |
| Capstone   | .176                |
| Career Center, Advising and  | .25                 |
| Catalog Under Which a Student Graduates                              | .37                 |
| CCHE Statewide Guaranteed Transfer Courses                           | .41                 |
| Center for Teacher Education   | .76                 |
| Certificate of Occupational Proficiency (see Programs of Study)      | .9, 10, 45, 46, 176 |
| Certified Electronics Technician (see Technology Integration)        | .72                 |
| Challenge Examination, Credit by                                     | .34                 |
| Chemistry (see Physical Sciences)                                    | .67, 97             |
| Classical Studies  | .51                 |
| Classification Status of Student                                     | .36, 178            |
| CLEAP  | .18                 |
| CLEP   | .34                 |
| College Based Programs (Federal)                                     | .19                 |
| College Center   | .27, 175            |
| College Level Examination Program (CLEP)                             | .34                 |
| College Opportunity Fund (COF)                                       | .21, 176            |
| Colorado Grants  | .18                 |
| Colorado Leveraging Education Assistance Program (CLEAP)             | .18                 |
| Colorado Student Aid Programs  | .18                 |
| Computational Science (see Mathematics)                              | .64                 |
| Computer Aided Design Technology (see Manufacturing Technology)      | .61, 98             |
| Computer Information Systems   | .51, 99             |
| Computer Information Systems Emphasis, Associate of Arts Degree      | .51                 |
| Computer Science   | .52, 100            |
| Computer Science Emphasis, Associate of Science Degree               | .52                 |
| Concentration  | .176                |
| Concurrent Enrollment, High School                                   | .15                 |
| Confirmation of Attendance   | .16                 |
| Contact Hours  | .176                |
| Cooperative Education  | .34, 78             |
| Core Transfer Curriculum, General Education Associate of Arts Degree | .44                 |
| Associate of Science Degree  | .44                 |
| Corequisite  | .176                |
| Counseling (see Advising or Counseling Services)                     | .26                 |

| SUBJECT                                | PAGE     |
|--|----------|
| Counseling Psychology (see Psychology) | .69      |
| Counseling Services                    | .26      |
| Course Descriptions                    | .87      |
| Course Load, Undergraduate             | .36, 176 |
| Credit Hour Requirements               |          |
| Associate Degrees                      | .55      |
| Baccalaureate Degrees                  | .39      |
| Criminal Justice                       | .53      |
| Criminology (see Sociology)            | .71      |
| Criterion, The                         | .27      |
| Culinary Arts                          | .53, 102 |
| Cultural Diversity Board               | .27      |
| Cumulative Grade Point Average (GPA)   | .32, 176 |

**- D -**

|  |                   |
|--|-------------------|
| Dance (see Theatre)  | .73, 103          |
| Day Care Center (see Little Mavericks Learning Center)           | .27               |
| Dean of Students, Office of                                      | .25               |
| Dean's List  | .177              |
| Declaring a Major  | .37               |
| Deficiencies   | .37               |
| Degree   | .177              |
| Degree Distinctions  | .38, 177          |
| Degree Plan, Graduate  | .81               |
| Degree or Certificate Requirements                               | .37               |
| Associate  | .44               |
| Baccalaureate  | .39               |
| Certificate of Occupational Proficiency                          | .45               |
| Dentistry, Pre-  | .9                |
| Department Challenge Examinations                                | .34               |
| Departments, Academic and Administrative (see Directory)         | inside back cover |
| Developmental Education (see Undergraduate Preparatory Courses)  | .79               |
| Dining Contract, Student Housing and                             | .23               |
| Disabled, Physical or Learning (see Educational Access Services) | .25               |
| Discipline   | .177              |
| Distance Learning  | .177              |
| Diversity Statement  | .8                |
| Double Major   | .177              |
| Dual Emphasis  | .45               |
| Dual-Listed Courses  | .81               |
| Dual/Double Baccalaureate Degree                                 | .177              |

**- E -**

|   |              |
|---|--------------|
| Early Scholars Program  | .15          |
| Economics (see Business Administration)                       | .50, 105     |
| Education, Early Childhood Emphasis, Associate of Arts Degree | .54, 76, 105 |
| Education, Teacher Licensure                                  | .54, 76, 106 |
| Educational Access Services                                   | .25          |
| Electives   | .177         |
| Electric Lineworker   | .55, 110     |
| Electronic Engineering Technology                             | .55, 110     |

| SUBJECT   | PAGE           | SUBJECT   | PAGE    |
|---|----------------|---|---------|
| Electronics Technician, Certified (See Technology Integration) . . . . .                            | 72             | Financial Aid Office . . . . .  | 18, 25  |
| Elementary Education Licensure . . . . .  | 76             | Financial Planning . . . . .  | 23, 26  |
| Emancipation . . . . .  | 20             | Fine Arts . . . . .   | 117     |
| Emergency Loans (see MSC Foundation Programs) . . . . .   | 19             | Fine Arts Organizations . . . . .   | 27      |
| Emergency Contact Services . . . . .  | 26             | Food Service (see Campus Dining) . . . . .                                      | 23      |
| Emeritus Faculty . . . . .  | 171            | Foreign Languages . . . . .   | 117     |
| Engineering . . . . .   | 111            | Foundation, Mesa State College . . . . .  | 19      |
| Engineering, Pre- . . . . .   | 9              | Freshman Year Initiative (F.Y.I) Program . . . . .                              | 78      |
| English . . . . .   | 56, 111        | <b>- G -</b>  |         |
| English Competency . . . . .  | 81             | General Education . . . . .   | 40, 177 |
| English (leading to secondary teacher licensure) . . . . .  | 56             | Core Transfer Curriculum . . . . .  | 40      |
| English Requirement . . . . .   | 38, 40, 44, 45 | General Education Course Requirements   |         |
| Enrollment . . . . .  | 177            | Associate of Arts, Science, Applied Science . . . . .                           | 44      |
| Environmental Geology (see Physical Sciences) . . . . .   | 67             | Baccalaureate . . . . .   | 41      |
| Environmental Restoration and Waste Management (see Environmental Science and Technology) . . . . . | 56             | General Information . . . . .   | 7       |
| Environmental Science (leading to secondary teacher licensure) . . . . .                            | 56             | General Office Administration (see Administrative Office Technology) . . . . .  | 46      |
| Environmental Science and Technology . . . . .  | 56, 114        | Geographic Information Systems . . . . .  | 57      |
| Exercise Science (see Human Performance And Wellness) . . . . .                                     | 58             | Geography . . . . .   | 119     |
| Expenses . . . . .  | 20             | Geology Emphasis, Associate of Science Degree (see Physical Sciences) . . . . . | 67, 119 |
| <b>- F -</b>  |                | Geology, Environmental Geology (see Physical Sciences) . . . . .                | 67, 119 |
| Facilities, College . . . . .   | 175            | Glossary . . . . .  | 176     |
| Faculty, Emeritus Faculty, and Visiting Professors . . . . .  | 166            | Governor's Opportunity Scholarship Program . . . . .                            | 18      |
| Family Educational Rights and Privacy Act (FERPA) . . . . .   | 3, 30          | Grade Improvement . . . . .   | 33, 177 |
| Federal Pell Grant Program . . . . .  | 19             | Grade Point Average (GPA) . . . . .   | 32, 177 |
| Federal Student Aid Programs . . . . .  | 19             | Calculation for Graduation . . . . .  | 38      |
| Fees and Other Expenses . . . . .   | 22             | Graduate . . . . .  | 82      |
| FERPA, Family Educational Rights And Privacy Act . . . . .  | 3, 30          | Minimum . . . . .   | 32      |
| Final Credit Requirements Taken at Another College . . . . .  | 37             | Grading System . . . . .  | 32, 82  |
| Finance (see Business Administration) . . . . .   | 50, 116        | Graduate Programs-Admission, Requirements . . . . .                             | 80      |
| Financial Aid . . . . .   | 18             | Graduate Student . . . . .  | 177     |
| Colorado Grants . . . . .   | 18             | Graduation Checklist . . . . .  | 37      |
| College Based Programs (Federal) . . . . .  | 19             | Graduation Requirements   |         |
| Colorado Graduate Grants . . . . .  | 18             | Graduate Checklist . . . . .  | 85      |
| Colorado Leveraging Educational Assistance Program (CLEAP) . . . . .                                | 18             | Undergraduate . . . . .   | 37      |
| Colorado Student Aid Programs . . . . .   | 18             | With Honors . . . . .   | 38, 177 |
| Colorado Work-Study . . . . .   | 18             | Graduation with Honors . . . . .  | 38, 177 |
| Federal Pell Grant Program . . . . .  | 19             | Grants, Student (see Financial Aid) . . . . .                                   | 18      |
| Federal Student Aid Programs . . . . .  | 19             | Graphic Design (see Art) . . . . .  | 48, 112 |
| General Guidelines . . . . .  | 19             | <b>- H -</b>  |         |
| Governor's Opportunity Scholarship Program . . . . .  | 18             | Health Insurance, Student . . . . .   | 22      |
| Mesa State College Foundation Programs . . . . .  | 19             | Health Services, Student . . . . .  | 26      |
| Scholarships . . . . .  | 18             | High School Concurrent Enrollment . . . . .                                     | 15      |
| Student Loans (emergency loans) (see MSC Foundation Programs) . . . . .                             | 19             | History . . . . .   | 57, 123 |
| Supplemental Leveraging Educational Assistance Program . . . . .                                    | 18             | History (leading to secondary teacher licensure) . . . . .                      | 57      |
| Tuition Payment Plan . . . . .  | 18             | Honor Lists . . . . .   | 35      |
| Western Undergraduate Exchange (WUE) . . . . .  | 19             | Honors Program . . . . .  | 78      |
|   |                | Honor Societies . . . . .   | 35      |
|   |                | Housing, Student . . . . .  | 23      |
|   |                | Human Performance and Wellness . . . . .  | 58, 125 |
|   |                | Human Performance and Wellness (leading to K-12 teacher licensure) . . . . .    | 58      |

| SUBJECT   | PAGE           | SUBJECT   | PAGE           |
|---|----------------|---|----------------|
| Human Performance and Wellness                      |                | Master's Degree                                       | 178            |
| Requirement   | 38, 38, 44, 45 | Master of Business Administration                     | 51, 84         |
| Human Services (see Sociology)                      | 71             | Mathematics   | 64, 135        |
| Human Subject and Animal Research                   | 84             | B.S./B.B.A. Degree Distinction                        | 39             |
| Humanities Emphasis, Associate of Arts              |                | Mathematics (leading to secondary teacher licensure)  | 64             |
| Degree  | 59, 129        | Mathematics Emphasis, Associate of                    |                |
|   |                | Science Degree  | 64             |
| <b>- I -</b>  |                | Mathematics Requirement                               | 38, 40, 44, 45 |
| Immunization Policy                                 | 31             | Matriculation   | 178            |
| Incomplete and In-Progress Grades                   | 32             | MAVCard/Identification Card                           | 28             |
| Independent Study                                   | 79, 177        | Meal Plans  | 24             |
| Information Technology (see Accounting)             | 46             | Media Organizations                                   | 27             |
| Intercollegiate Athletics                           | 27             | Medical Secretary (see Administrative Office          |                |
| Interdisciplinary Major (see Liberal Arts)          | 59             | Technology)   | 46             |
| Interdisciplinary Study                             | 129            | Medicine, Pre-  | 9              |
| International Baccalaureate                         | 34             | Mesa State Activities Council                         | 27             |
| International Students                              |                | Mesa State College Foundation Programs                | 19             |
| Admission, Graduate                                 | 80, 85         | Minor (also see entries in Programs of Study)         | 10, 78         |
| Admission, Undergraduate                            | 14             | Montrose Campus                                       | 7              |
| International Studies                               | 59             | Multiple Concentrations, Baccalaureate Degree         | 44, 177        |
| Intramurals (see Campus Recreation Services)        | 28             | Music   | 65, 138        |
|   |                | Music (leading to K-12 teacher licensure)             | 65             |
| <b>- K -</b>  |                | Music Theatre (see Theatre)                           | 73             |
| K-12 Education Licensure                            | 76             | National Student Exchange                             | 31             |
| KMSA, 91.3  | 27             |   |                |
|   |                | <b>- N -</b>  |                |
| <b>- L -</b>  |                | Network Technician (see Technology                    |                |
| Learning Disabled (see Educational Access Services) | 25             | Integration   | 72             |
| Learning Progress Evaluation                        | 35             | New Students:   |                |
| Legal Secretary (see Administrative Office          |                | Student Orientation, Advising and                     |                |
| Technology  | 46             | Registration (SOAR)                                   | 17             |
| Leveling Courses, MBA Program                       | 86             | Welcome Week  | 17             |
| Liberal Arts  | 59             | News/Editorial (see Mass Communications)              | 63             |
| Liberal Arts (leading to elementary                 |                | No-Credit-Desired/Audit Courses                       | 30, 176        |
| teacher licensure)                                  | 59             | Non-Resident Scholarship                              | 18             |
| Library, Tomlinson                                  | 27             | Non-Traditional Students                              | 13             |
| Licensure, Teacher                                  | 76             | Non-Traditional Credit                                | 33             |
| Literary Review, The                                | 27             | Nursing   | 66, 142        |
| Literature (see English)                            | 56             |   |                |
| Literature and Language (see Spanish)               | 71             | <b>- O -</b>  |                |
| Little Mavericks Learning Center                    | 27             | Office Administration, General (see Administrative    |                |
| Loans, Student (see MSC Foundation Programs)        | 19             | Office Administration)                                | 46, 145        |
|   |                | Optometry, Pre-                                       | 9              |
| <b>- M -</b>  |                | Orientation   | 17             |
| Machine and Manufacturing Trades (see Manufacturing |                | Outdoor Program                                       | 27             |
| Technology  | 61, 129        | Overview of Mesa State College                        | 7              |
| Manufacturing Technology Emphasis,                  |                |   |                |
| Associate of Science Degree                         | 61             | <b>- P -</b>  |                |
| Machining Technology (see Manufacturing             |                | Parking, Campus                                       | 28             |
| Technology  | 61             | Pell Grant Program                                    | 19             |
| Major   | 178            | Personal Computer Recommendation                      | 23             |
| Major, Declaring                                    | 37, 178        | Personal Training (see Human Performance and Wellness | 58             |
| Management (see Business Administration)            | 50, 131        | Personnel, Mesa State College                         |                |
| Manufacturing Technology                            | 61             | Administrative Personnel                              | 166            |
| Marketing (see Business)                            | 50, 132        | College Officers                                      | 166            |
| Mass Communications                                 | 63, 133        | Faculty List  | 168            |

| SUBJECT  | PAGE           | SUBJECT   | PAGE    |
|--|----------------|---|---------|
| Recent Emeritus Faculty  | 171            | Add/Drop, Schedule Adjustments                                    | 29, 176 |
| Visiting Professors List   | 172            | FERPA   | 3, 30   |
| Philosophy   | 67, 146        | Good Standing   | 178     |
| Philosophy and Goals of a Baccalaureate Education                                  | 40             | Immunization Policy   | 31      |
| Physical Education (see Human Performance and Wellness)                            | 58             | No Credit Desired/Audit   | 30      |
| Physical or Learning Disabled (see Educational Access Services)                    | 25             | Selective Service   | 31      |
| Physical Sciences  | 67             | Senior Passport   | 31      |
| Physical Sciences-Geology (leading to secondary teacher licensure)                 | 67             | Student Liability for Tuition and Fees                            | 22, 29  |
| Physical Therapy, Pre-   | 9              | Withdrawal Procedures   | 29      |
| Physics Emphasis, Associate of Science Degree (see Physical Sciences)              | 67, 147        | Research Activities   | 84      |
| Plagiarism   | 36, 83         | Research Misconduct   | 84      |
| Policies   |                | Residence Halls and Apartments (see Housing, Student)             | 23      |
| Affirmative Action   | 3              | Residency Requirement, Mesa State Courses                         |         |
| Campus Security Act  | 3              | Associate Degree  | 39, 176 |
| Diversity Statement  | 8              | Baccalaureate Degree  | 44, 176 |
| Drug-Free Workplace Statement  | 3              | Residency Status, Tuition   | 20      |
| FERPA  | 3, 30          | Room and Board Charges  | 24      |
| Political Science  | 68, 149        |   |         |
| Post-Baccalaureate Licensure Options   | 77             | <b>- S -</b>  |         |
| Precollegiate Curriculum Requirements  | 15, 178        | SAT or ACT Scores   |         |
| Pre-Health (Dentistry, Medicine, Optometry, Physical Therapy, Veterinary Medicine) | 9              | General Undergraduate   | 12      |
| Pre-Engineering  | 9              | Radiologic Technology Students                                    | 16      |
| Pre-Forestry   | 9              | Scholarships  | 18      |
| Pre-Medical Technician   | 9              | Second Associate Degree   | 45      |
| Pre-Pharmacy   | 9              | Second Baccalaureate Degree and Concentrations                    |         |
| Preparatory Courses, Undergraduate   | 79             | within One Degree   | 44      |
| Prerequisite   | 178            | Secondary Education Licensure                                     | 76      |
| President's List   | 178            | Selective Service   | 31      |
| Print Media (see Mass Communications)  | 63             | Senior Passport to Education Program                              | 31      |
| Priority Registration  | 178            | SOAR (Student Orientation, Advising, Registration)                | 17      |
| Privacy Act (see FERPA)  | 3, 30          | Social Science (Interdisciplinary Major)                          | 70, 154 |
| Program Sheet  | 8, 37, 39      | Social Science Emphasis, Associate of                             |         |
| Program Time Limits, Graduate  | 82             | Arts Degree   | 70      |
| Programs of Study  | 8, 10, 46      | Sociology   | 71, 154 |
| Psychology   | 69, 150        | Spanish   | 71, 117 |
| Psychology, Counseling (see Psychology)  | 69             | Speech  | 72, 155 |
| Public Accounting (see Accounting)   | 46             | Sponsored Programs  | 84      |
| Public Relations/Advertising (see Mass Communications)                             | 63             | Sport and Fitness Management (see Human Performance and Wellness) | 58      |
|  |                | Standards, Academic   | 32      |
| <b>- Q -</b>   |                | Statistics (see Mathematics)                                      | 64, 156 |
| Quality Points   | 32, 111        | Student Activities  | 27      |
|  |                | Student Bill of Rights  | 8       |
| <b>- R -</b>   |                | Student Classification Status                                     | 36, 178 |
| Radio Station, Student (KMSA)  | 27             | Student Conduct   | 36      |
| Radiologic Technology  | 70, 153        | Student Credit Load and Limitations                               |         |
| Recreation, Intramural Services  | 28             | Undergraduate   | 36      |
| Refunds (see Fees, or Tuition, or Housing, Student)                                | 23             | Graduate Time Limit   | 82      |
| Registrar's Office   | 3, 25, 29, 178 | Student Financial Planning  | 23      |
| Registration Policies and Procedures   |                | Student Government, Associated                                    | 27      |
|  |                | Student Health Center   | 26      |
|  |                | Student Health Insurance  | 22      |
|  |                | Student Housing   | 23      |
|  |                | Student Liability for Tuition and Fees                            | 22, 29  |



| SUBJECT  | PAGE               |
|--|--------------------|
| Student Loans  | .19                |
| Student Services   | .25                |
| Studio Art (see Art)   | .48                |
| Summer Session   | inside front cover |
| Supplemental Courses (see Undergraduate Preparatory Courses) | .79, 157           |
| Supplemental Leveraging Educational Assistance Program       | .18                |
| <b>- T -</b>   |                    |
| Teacher Education (Licensure), Center for                    | .76, 79            |
| Teacher Education: Programs Leading to Initial Licensure:    |                    |
| Elementary   |                    |
| Liberal Arts   | .10, 76, 89        |
| K-12   |                    |
| Art  | .10, 48, 76        |
| Human Performance and Wellness                               | .10, 58, 76        |
| Music  | .10, 65, 76        |
| Secondary  |                    |
| Biology  | .10, 49, 76        |
| English  | .10, 56, 76        |
| Environmental Science and Technology                         | .10, 56, 76        |
| History  | .10, 57, 76        |
| Mathematics  | .10, 64, 76        |
| Physical Sciences-Geology                                    | .10, 56, 76        |
| Post-Baccalaureate   | .10, 77            |
| Technical and Professional Writing (see English)             | .56                |
| Technology Integration                                       | .72, 156           |
| Telecommunications Engineer (see Technology Integration)     | .72                |
| Testing Center   | .25                |
| Theatre  | .73                |
| Theses   |                    |
| Graduate   | .82                |
| Honors   | .78                |
| Tomlinson Library  | .27                |
| Topics Courses   | .79                |
| Transcript   | .178               |
| Transfer, CCHE Statewide Guarantee                           |                    |

| SUBJECT  | PAGE            |
|--|-----------------|
| Transfer Courses   | .41             |
| Transfer Credit  | .178            |
| Final Credit Requirements  | .37             |
| Transcript Evaluation  | .13, 25, 26, 81 |
| Transfer Services, Office of   | .26             |
| Transportation Services Cluster  | .73             |
| Travel, Tourism, and Recreation Management (see Business Administration) | .50             |
| Tuition and Fees (see Expenses)  | .21             |
| Refunds  | .23             |
| Residency Classification   | .20             |
| Schedule   | .21             |
| Student Liability for Tuition and Fees                                   | .22, 29         |
| Tutoring Program   | .25             |

**- U -**

|                                   |      |
|-----------------------------------|------|
| Undergraduate                     | .178 |
| Undergraduate Preparatory Courses | .79  |
| UTEC Campus                       | .8   |
| (See also Applied Technology)     |      |
| UTEC Courses                      | .163 |

**- V -**

|                           |         |
|---------------------------|---------|
| Varsity Athletics         | .38     |
| Veterans                  | .31, 36 |
| Veterinary Medicine, Pre- | .9      |
| Visiting Professors       | .172    |

**- W -**

|   |          |
|---|----------|
| Watershed Science (see Physical Sciences) | .67      |
| Welcome Week                              | .17      |
| Welding (see Manufacturing Technology)    | .61, 164 |
| Western Undergraduate Exchange (WUE)      | .19      |
| Withdrawal Procedures                     | .29      |
| Work-Study                                | .18, 19  |
| Writing (see English)                     | .56      |
| Writing Center                            | .25      |
| Written Comprehensive Examinations        | .83      |
| WUE (Western Undergraduate Exchange)      | .19      |

# CAMPUS DIRECTORY

| Office  | Location                 | Extension      | Office  | Location                     | Extension      |
|---|--------------------------|----------------|---|------------------------------|----------------|
| Academic & Student Affairs . . . .              | LHH 209. . . . .         | 248-1881       | Foundation . . . . .                          | 1450 N 12th . .              | 248-1295       |
| Academic Departments                            |                          |                | MBA Program . . . . .                         | H 220 . . . . .              | 248-1778       |
| <u>Main Campus:</u>                             |                          |                | Graduation Information. . . . .               | LHH 121. . . . .             | 248-1555       |
| Art. . . . .                                    | FA200. . . . .           | 248-1833       | Honors Program . . . . .                      | W265 . . . . .               | 248-1984       |
| Biological Sciences. . . . .                    | W 238. . . . .           | 248-1993       | Housing . . . . .                             | SLC . . . . .                | 248-1536       |
| Business . . . . .                              | H 100 . . . . .          | 248-1087       | Residence Halls:                              |                              |                |
| Computer Science, Math, & Stats                 |                          |                | Mary Rait . . . . .                           | MR. . . . .                  | 248-2151       |
| . . . . .                                       | W 155. . . . .           | 248-1407       | Monument Hall. . . . .                        | MH. . . . .                  | 255-2595       |
| Human Perf & Wellness . . . . .                 | S 125 . . . . .          | 248-1635       | Pinon Hall . . . . .                          | PH . . . . .                 | 248-1793       |
| Languages, Literature, & Mass Communications    |                          |                | Tolman Hall . . . . .                         | TH . . . . .                 | 254-4377       |
| . . . . .                                       | LHH 445. . . . .         | 248-1687       | Walnut Ridge Apartments . . . . .             | WR. . . . .                  | 254-4282       |
| Music . . . . .                                 | MPAC 113 . . . . .       | 248-1233       | Human Resources . . . . .                     | LHH 237. . . . .             | 248-1820       |
| Nursing & Radiologic Sci . . . . .              | M 142. . . . .           | 248-1398       | Industrial Education Training Center          |                              |                |
| Physical & Environmental Sciences               |                          |                | . . . . .                                     | 2980 D Rd . . . . .          | 248-1372       |
| . . . . .                                       | W238 . . . . .           | 248-1993       | Institutional Research & Assessment . . . . . | LHH 221. . . . .             | 248-1884       |
| Social & Behavioral Sci . . . . .               | LHH 411. . . . .         | 248-1696       | International Admissions Counselor . . . . .  | AO. . . . .                  | 248-1613       |
| Teacher Education. . . . .                      | A205. . . . .            | 248-1786       | KMSA/91.3FM. . . . .                          | CC 123 . . . . .             | 248-1240       |
| Theatre . . . . .                               | MPAC 113 . . . . .       | 248-1233       | Library . . . . .                             | L. . . . .                   | 248-1862       |
| <u>Montrose Campus</u> . . . . .                | MC . . . . .             | (970) 249-7009 | Little Mavs Learning Center . . . . .         | M . . . . .                  | 248-1318       |
| <u>UTEC:</u>                                    |                          |                | Toddler Tech. . . . .                         | M . . . . .                  | 248-1086       |
| Applied Technology, 2508 Blichmann Ave. . . . . |                          | 255-2600       | Mail Room . . . . .                           | FS 11 . . . . .              | 248-1202       |
| Academic Services . . . . .                     | LHH 127. . . . .         | 248-1304       | MAVCard Office. . . . .                       | CC102 . . . . .              | 248-1059       |
| Advising & Career Center. . . . .               | LHH 127. . . . .         | 248-1177       | Media Services . . . . .                      | L 132 . . . . .              | 248-1734       |
| Accounting Office. . . . .                      | LHH 101. . . . .         | 248-1567       | Mesa @Night . . . . .                         | LHH 107. . . . .             | 248-1384       |
| Admissions Office . . . . .                     | 1170 Elm Ave. . . . .    | 248-1875       | Montrose Campus. . . . .                      | MC . . . . .                 | (970) 249-7009 |
| Alumni . . . . .                                | 1450 N 12th . . . . .    | 248-1525       | Outdoor Program . . . . .                     | C121. . . . .                | 248-1428       |
| Americorps. . . . .                             | H 127 . . . . .          | 248-1196       | Parking Services . . . . .                    | 1041 Mesa Ave . . . . .      | 248-1919       |
| Associated Student Government . . . . .         | CC 106. . . . .          | 248-1762       | Police, Non-Emergency                         |                              |                |
| Athletics . . . . .                             | S 125 . . . . .          | 248-1503       | (GJPD) . . . . .                              | 625 Ute Ave . . . . .        | 242-6707       |
| Behavioral Clinical Services . . . . .          | 2004 N 12th #47. . . . . | 241-6500       | President's Office . . . . .                  | LHH 301. . . . .             | 248-1498       |
| Bookstore . . . . .                             | CC 164. . . . .          | 248-1422       | Public Relations, Marketing/Publications      |                              |                |
| Box Office . . . . .                            | MPAC. . . . .            | 248-1604       | . . . . .                                     | LHH 205. . . . .             | 248-1868       |
| Campus Dining. . . . .                          | CC 137. . . . .          | 248-1742       | Public Safety/GJPD Substation                 |                              |                |
| Center for Teaching & Learning Lab . . . . .    | L 213D. . . . .          | 248-1763       | . . . . .                                     | 1041 Mesa Ave . . . . .      | 248-1919       |
| College Center Information Desk . . . . .       | CC 173 . . . . .         | 248-1758       | Recreation Center . . . . .                   | S 136 . . . . .              | 248-1592       |
| Community Education Center . . . . .            | UTEC B 185. . . . .      | 255-2800       | Regional Outreach . . . . .                   | LHH 107. . . . .             | 248-1942       |
| Computer Lab, Library . . . . .                 | L 120 . . . . .          | 248-1885       | Registrar's Office . . . . .                  | LHH 121. . . . .             | 248-1555       |
| Computer Passwords. . . . .                     | L 120 . . . . .          | 248-1885       | SOAR . . . . .                                |                              | 248-1405       |
| Criterion Newspaper . . . . .                   | CC 113 . . . . .         | 248-1212       | Student Health Center . . . . .               | 1060 Orchard, Ste O. . . . . | 256-6345       |
| Dean of Students. . . . .                       | LHH 107. . . . .         | 248-1366       | Testing Center. . . . .                       | UTEC B117 . . . . .          | 255-2750       |
| Educational Access Services . . . . .           | 1020 Elm Ave. . . . .    | 248-1801       | Transcript Request . . . . .                  | LHH 121. . . . .             | 248-1555       |
| Entrepreneurial Business Institute. . . . .     | H 127B . . . . .         | 248-1167       | Transfer Center . . . . .                     | .ECEC 2nd Fl #1 . . . . .    | 248-1232       |
| Extended Campus Program . . . . .               | LHH 107. . . . .         | 248-1384       | Tuition Classification Officer . . . . .      | 1170 Elm Ave. . . . .        | 248-1458       |
| Facilities Services . . . . .                   | FS 02 . . . . .          | 248-1465       | Tutoring Program . . . . .                    | H 110 . . . . .              | 248-1392       |
| Financial & Administrative Services . . . . .   | LHH 252. . . . .         | 248-1804       | UTEC Student Services . . . . .               | UTEC B . . . . .             | 255-2670       |
| Financial Aid . . . . .                         | LHH 116. . . . .         | 248-1396       |   |                              |                |

### Building Legend

|                                   |  |                                      |
|-----------------------------------|--|--------------------------------------|
| A – Albers Hall                   | IETC – Industrial Educ Training Center | S – Saunders Field House             |
| AO – Admissions Office            | L – Library                            | SHC – Student Health Center          |
| CC – W.W. Campbell College Center | LHH – Lowell Heiny Hall                | SL – Science Lab Building            |
| FA – Fine Arts                    | M – Medesy Hall                        | SLC – Student Life Center            |
| FS – Facilities Services          | MC – Montrose Campus                   | UTEC – Unified Technical Educ Campus |
| H – Houston Hall                  | MPAC – Moss Performing Arts Center     | W – Wubben Hall                      |